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ABSTRACT

Within the context of occupational education planning, this report proposes a region-wide coordinated system that is responsive to the needs of all segments of the city's population, as well as to the specific needs of each individual. Occupational education, it is indicated, will be successful in the city's high schools only if it emcompasses career education, that is, the blending of work experience with regular school courses and programs. Supportive and training services are proposed for out-of-school youth and adults, especially for minority youth who suffer disproportionately higher unemployment rates and need greater opportunities in skills development. Goals, objectives, and activities for occupational and career education are provided, and factors such as staffing, curriculum, facilities, community relations, and counseling are discussed. Tables provide data on occupational programs on the secondary level, occupational training for adults and college students, enrollment by sex in occupational education, and student enrollment. (WP)

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New York City Regional
Annual Plan (1976-77) and Long Range Plans (1977-81) for . . .
Comprehensive Occupational Education

Center for Career and Occupational Education
Board of Education of the City of New York
Division of Educational Planning and Support

U.S. DEPARTMENT OF HEALTH,
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Long Range and Annual Plans
for
Occupational Education in the Region
# of the
City of New York

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Overall responsibility for the development of the final document was shared by members of the Unit for Planning, Evaluation and Research of the Center for Career and Occupational Education, Fred W. Banes, Project Director, Vera L. Hannenberg, Project Coordinator. The secretarial support provided by Elise Stockton and Daphne Belmar is acknowledged with gratitude.

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INTRODUCTION

This Plan has been developed against a background of grave uncertainties. At stake are the City's fiscal solvency and its economic survival. On the one hand, these instabilities create a shaky base on which to rest planning commitments. On the other hand, the planning process represents a forceful bulwark against the instability.

The opening section which deals with the "Abundance of Needs" in the Region sets the framework for the Plan. The assessment of needs is realistic and consonant with the special conditions of the present time.

The Plan takes into account all of the diverse populations in the universe of need for the region of the City of New York. Where access to information has been limited, or where the validity or reliability of public data is in question--these limitations are candidly discussed. The populations for whom services are proposed span the full range--from pre-secondary, to secondary, to out-of-school youth, to adults, the handicapped, the disadvantaged, and the post-secondary sector.

Private as well as public institutions (other than those under the Board of Education) are represented in the assessment of the total training output for the Region. Yet, despite intensive efforts to provide a comprehensive and thorough analysis of this total output, the results are less than satisfying. Problems attending these analyses are discussed in detail in the appropriate sections of the Plan.

The Post-Secondary section of this document represents a first step in what, it is hoped, will eventually emerge as a joint planning process involving the Board of Educatin and the Board of Higher Education (City University of New York). A willingness to participate in such a venture has already been indicated by members of the private sector.

The essence of the Plan is contained in Section V, which presents an overall mission, and details the goals, objectives, activities and expected outcomes. A hierarchy of goals is presented in the opening pages of this section.

With acknowledged limits, this Plan proposes to chart a course for occupational education in the region that is consistent with needs, and within reasonable possibility of attainment.

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SECTION 1

ABUNDANCE OF NEEDS

THE ABUNDANCE OF NEEDS

Considering the well-publicized economic problems of the City of New York, the extremely high unemployment rate, and the large numbers of disadvantaged, handicapped, limited English-speaking, untrained and economically deprived residents, it is difficult to specify any population group or situation where serious needs are not prevalent. It is also difficult to define the type of need that is most demanding but, in the context of Occupational Education planning, the need is to address the problem on unemployment. This entails a region-wide coordinated system of referral and training that is responsive to each individual's interest and capabilities. This system should recognize the needs of all components of the City's populations with regard to the availability of training programs, criteria for participation in such programs, and assistance in procuring employment at the termination of appropriate training. In addition, the system should provide for follow-up services and appropriate counseling activities.

The coordinated system should involve the identification of areas of labor shortage and surpluses with respect to the current situation and to future trends. This information is critically important, not only in business and economic planning, but also in occupational training and curriculum development. It is equally important, however, that information be available relative to the employers' training requirements according to various job categories that may represent employment opportunities for trainees. Currently, no system exists for reporting all job openings to a central agency nor for a central registry of all job seekers. There is therefore no way of correlating job openings with numbers of trainees in any given occupational area.

Basically, this system should involve a comprehensive career development program beginning at early age levels, with attention on career awareness and career exploration activities, and continuing through secondary and post-secondary training in areas that offer employment opportunities or preparation for advanced training, including that required for professional careers. The system must also provide opportunities for training or retraining for persons outside the public education system for those who are handicapped, and therefore require specialized training services.

At the elementary and junior high/intermediate school levels, occupational education needs to take on a career education orientation. This involves the development of program and curriculum that infuse information and experiences of the world of work with regular school courses and programs.

Many of the critical needs of Occupational Education at the secondary level are highlighted in an unpublished report of the Chancellor's Task Force on Occupational Education. The recommendations of this Task Force, and information on associated problems and needs, are presented in Appendix A. These recommendations are related to the needs for: 1) additional facilities that will provide quality occupational education for increasing numbers of students, 2) plant and curriculum upgrading and modernization, 3) modular training sequences, 4) staff development and a number of other factors and changes, all aimed at enhancing the scope, quality and accessibility of occupational education opportunities for the City's secondary student population.

In further emphasizing the needs of secondary level students of New York City, it has been estimated that over 139,000 students are educationally disadvantaged. This figure corresponds to 47% of all disadvantaged secondary students in the State. Thus, the need is to meet the total educational requirements of students combining supportive services, academic skills and occupational education.

The needs of New York City's public school students at all levels, relative to supportive services, career and occupational education, bilingual programs, etc., exceed those of any City in the entire State! New York City's public schools enroll 72% of the Black students, and 89% of all Spanish Surnamed students. Also, 63% of the public school students of the State, who come from families with incomes below poverty level, are enrolled in the City's public schools.

At the post-secondary level, needs are related not only to providing viable occupational education programs but also supportive services that will enhance the programs of the schools and their value to the students. In view of the current economic situation, there is also an overriding need for centralized planning for post-secondary occupational education that will affect a consolidation of programs within selected colleges, articulated programs between colleges and with secondary schools, and Continuing Education programs at the colleges.

The needs of out-of-school youth and adults for supportive and training services are apparent when considering the following information:

- Approximately 40,000 students dropped out of the City's public secondary schools in 1974-75. Most of these students were not prepared with employable skills and therefore an inordinately high percentage of this population are, and will likely remain, unemployed. Skills development opportunities and work experience, as well as motivation for additional education, represent primary needs for this population.

- It was estimated that 700,000 youths between the ages of 16-21 resided in New York City in 1974. Of this number 39,000 had attained only the 8th grade level or less, and 517,000 had received between one and four years of high school education.

- It is estimated that during 1977 approximately 200,000 youth in the age group 16-21 will experience some periods of unemployment. Disadvantaged by reason of age, education and experience, as well as other factors, youth more than any other group as a whole experience the most severe handicaps in competing for available jobs in the labor market.

- Of the projected 867,000 who will experience some joblessness in 1977, it is estimated that 389,000 will be women, 310,000 minority group residents, 382,000 older adults (age 45 and above) and, as noted above, approximately 200,000 youths in the 16-21 age group.

- Hispanic residents, constituting 14% of the labor force, will represent an estimated 20% of the unemployed, while Non-Whites (21% of labor force) will account for 23% of the unemployed. Increasing proportions of the labor force are less educated and less skilled due to in-migrations of populations from economically deprived and less developed sections of the nation and the world.

- It has been estimated that in 1975 the unemployment rate for all persons age 16 and over was 10.6% for the City as a whole. As indicated by data in the following table, White and Black teenagers experienced, by far, the highest levels of unemployment. Also, as shown below, employment of all persons, age 16 and over, from low income areas was estimated to be 14.8% in 1975. However, the unemployment rates of several populations from low income areas of the City were in excess of 50%.

New York City as a Whole	Unemployment Rate Est. 1975
Total all persons (Age 16 and over)	10.6
White women (20-59 Age Group)	9.0
White men " " "	9.2
Black women " " "	9.9
Black men " " "	10.2
White teenagers both sexes	28.0
Black teenagers both sexes	50.7
Low Income Areas	
Total all persons (Age 16 and over)	14.8
Black women (Age 20+)	10.8
Black men "	13.2
Puerto Rican men "	16.1
Puerto Rican women "	18.7
Puerto Rican teenagers, female	55.1
Black teenagers, female	59.9
Black teenagers, male	65.5
Puerto Rican teenagers, male	72.8

- Large numbers of the long-term unemployed and welfare recipients are those who have minimal English reading, writing and speaking skills. These population face particular difficulties in competing for jobs in a predominantly English-speaking labor market.

- Older workers (age 45 plus) comprise 29% of the City's total age 14+ population. Considering that approximately 382,000 of this population will experience some periods of unemployment in 1977, placement, and other supportive services.

- While the number of handicapped persons in the City's labor force is not known to any degree of accuracy, it is undoubtedly substantial and as a whole, the group faces severe difficulties in the competition for available jobs. Often at a disadvantage in the competitive labor market because of lack of experience and skills, which can be developed in many cases, such persons are forced to rely on public assistance and forms of support other than employment. Currently, the training capacity in programs that might significantly impact upon the employment prospects for this group is inadequate to meet the need.

- For various reasons, ex-offenders as a group are perhaps the most severely disadvantaged in the competition for available jobs. Of the ex-offenders population residing in New York City (estimated at over 100,000 men and women), 65% are non-Whites, 25% Hispanic and 15% White. With an average age of 26 years, only 5% of the ex-offenders have attended high school and 40% have only an elementary school education. Two thirds of all ex-offenders were unemployed at the time of their arrest and one third had been unemployed for one year or more.

This plethora of needs represents the basis for and the difficulty with definition of "Priorities", or at least in rank order. For example, the listing of priorities on page   is so extensive and urgent that it is difficult to sort out the less pressing from the most pressing.

Basically, however, providing quality Occupational Education that is consistent with the needs and interests of students of all ages, and will prepare them for useful and fruitful employment and/or post-secondary training/education, is the high priority. This involves meeting the training needs of any student or client, and assisting the trainee in finding, adjusting to, appreciating, and benefitting from work or post-secondary education. However, all those activities and suporative services that make the above possible must be acknowledged for their role in achieving the ultimate goal.

It is not then a matter which function or need has the highest priority but rather, how are people, time, money and resources to be managed so as to effectively meet the wide spectrum of needs. Whether or not we are comfortable with the fact, this forces the educational system and its administrators to look beyond broad, noble-sounding goals to the realistic performance objectives. In other words, what will be done, when, and by whom, and how will the results be measured? This will remind us that the objectives do not relate, in the ultimate sense, to means but to the end results; not to the staffs but to the students; and not to what will be changed but who will be changed.

SECTION 2

CENSUS OF SCHOOL POPULATIONS

CENSUS OF SCHOOL POPULATIONS

Public School Populations

School census data, presented in Appendix Table I, illustrate the trends in school populations, at various grade levels, between 1968 and (est.) and 1976. As indicated, the Elementary and Intermediate School/Junior High School registers have decreased since 1970 but the High School and Special School registers have continued to increase. The data indicate that between 1970 and 1976, the populations of the Academic/Comprehensive High Schools, the Vocational High Schools and the Special High Schools are expected to increase by 1%, 5% and 10% respectively.

The changes in school registers have been accompanied by changes in the ethnic group distribution of the student bodies as noted below:

Ethnic Groups	% of Total Student Population 1968-69	1974-75
Puerto Rican	21.5	23.0
Other Spanish Surnamed Students	2.7	5.0
Black	32.2	36.6
American Indian	0.0	0.1
Oriental	1.3	2.1
Other	42.3	33.2

Changes in registers at various school levels and grades illustrate the quantitative changes in registers according to student ethnic groups. For example, the following data show the changes in registers between October 30, 1970 and October 30, 1974:

Change in Numbers of Public School Student Registers

	Puerto Rican	Other Span. Surnamed	Black	Amer. Ind.	Oriental	Other	Net Change
Elementary	-14,611	+5,389	-17,540	+ 89	+2,385	-37,499	-61,784
IS/JHS	+ 158	+3,623	+ 3,167	+ 28	+1,241	-13,700	- 5,483
Acad./Comp. HS	+ 5,503	+5,413	+19,178	+ 11	+1,865	-13,263	+18,707
Vocational HS	+ 1,350	+ 564	+ 3,677	+ 19	+ 242	- 1,727	+ 4,125
Net Change	- 7,600	+14,989	+ 8,482	+147	+5,736	-66,189	-44,435

While the pattern of decrease in "other" and total student populations follow the population trend, this is apparently not the case with some of the ethnic groups. For example, while the Black student population of elementary schools showed a major decrease between 1970 and 1974, and the intermediate and secondary schools showed major increase in Black student registers, in contrast, the Citys' Black population increased very little between 1970 and 1975.

A similar pattern and relationship is observed for Puerto Ricans. In comparison, school registers of "Other Spanish Surnamed" students have increased significantly at all levels. This is in correspondence with a major population increase for this sector of the City's population.

Appendix Table II summarizes the Academic and Vocational High School registers from 1969 to 1974 (by grades) and compares these figures with those projected for 1976-1977. In addition to showing the projected continued increase in high school enrollments, these data also project a significant increase in the handicapped student population of both the Academic and Vocational High Schools.

In the case of Vocational High Schools, total registers increased in 1975-76 by approximately 2.5% over 1974-75 levels:

Vocational High Schools Registers

	Grade 9	Grades 10-12	13th Year	Totals
1974-75	9,867	33,172	179	43,218
1975-76	9,646	34,478	147	44,271

These figures are based on October 31 registers. In comparison October, 1976, registers are expected to be about 9.5% higher than those shown above for 1975 and more than 7% above the estimate shown in Appendix Table II. Latter figure would correspond, on the average, to Vocational High Schools operating at close to 120% capacity.

The increased Vocational High School enrollment in 1976 is a move in the direction of meeting the occupational interests of students by accommodating a portion of the 13,000-15,000 who have been denied admission to Vocational High Schools in each of several preceding years. However, the expected increased registers will also reflect additional student applications from private schools of the City.

Appendix Table III, shows a further breakdown of the high school registers by grade level and by ethnic group distribution for the school year 1974-75.

The following table summarizes the relative breakdown of ethnic student populations:

% of Student Registers, 1974

	Academic/Comprehensive High Schools	Vocational High Schools	Total Public Schools
Puerto Rican	16.1	32.5	23.0
Other Spanish Surnamed	4.9	3.1	5.0
Black	34.6	38.2	36.6
American Indian	0.1	0.1	0.1
Oriental	2.0	1.6	2.1
Other	42.3	24.5	33.2

A perennial problem facing New York City education is the high rate of mobility of students in and out of schools during the course of a single year. A serious contributing factor is the student "drop-outs" since these students are terminating their school programs short of being prepared, in the usual case, for employment. "Drop-outs" in the context of this report, include those students who are discharged from schools for reasons of "Over 17 years of Age", "Received Employment Certificate", "Married", and "Not Found". However, as indicated by the example of student discharge data given in Appendix IV, there are many other reasons why additional students terminate their high school careers aside from graduation. The reasons other than those noted above are legitimate and it can be presumed that the students are continuing their education elsewhere or are physically or mentally incapable of doing so.

The magnitude of the "drop-out" problem is illustrated by the data of Appendix Table V. Here the number of "drop-outs" during the September-June period is compared with October 30 registers of high schools for several years in the period 1968-1974. It will be noted that the "drop-outs", as a percent of October 30 registers, is at a level of 12-14% for the Academic/Comprehensive High Schools with some indication of an increasing percentage since 1970-71. On the other hand, the "drop-out percentage" for the Vocational High Schools has decreased regularly since 1968-69, declining from 15.7% to 9.7% in 1974-75. As also shown, the "Vocational High School Drop-outs" in 1974-75 represented 10% of the total drop-outs vs 18% in 1968-69. In this period, the October 30 registers of the Vocational High Schools remained fairly constant at about 16% of total high school registers.

Although the drop-out record of the Vocational High Schools is still far above the desirable level, it is gratifying that progress in being made even though all the reasons for this progress, as it is, are not clear.

One of the factors in Appendix Table VI is "Discharges - Move out of City". The magnitude of this factor on the school populations is illustrated by the data of Appendix Table VI for the school year 1970-71 and 1974-75.

These data show, for the two years, the movement of students in and out of the New York City public schools and with respect to the areas or countries of origin and destination. Overall, about 5% of the total student body of the City left the City each year and these student losses were offset by new students entering the schools. This percentage varies with the school level more than with the year. For example, about 5.7% of the Elementary students moved out of the city each year but fewer (about 5%) came into the City and its schools. At the Junior High School level, the "ins" and "outs" were fairly well in balance whereas in the Academic High Schools, there was a net gain of about 2,000 students. On the other hand, about 3% of the Vocational High School students (approximately 1,240 students) moved out of the City each year and less than 500 new students came into the schools from areas outside the City. This situation might be expected considering the requirements for participation in Vocational High School programs.

Among the figures of Table VI, it is of interest to note the large numbers of students entering and leaving the City's public schools with the origin/destinations of Puerto Rico, other West Indian countries and the category "Other Foreign Countries" (excluding Europe). In most if not all school levels, the number of these students who entered the school system was considerably greater than those leaving the system.

Overall, some 110,000 students enter and leave the City and its public schools each year. The change in student populations of the high schools, for this reason, amounts to over 22,000 students each year (about 12,000 entering the City and 10,000 leaving).

Student mobility is also evidenced by the movement of students between the schools of the City. This factor accounts for the movement of approximately 16,000 students in New York City Public High Schools each year with the following approximate pattern of movement.

	Number of Students
Transfer Vocational to Academic/ Comprehensive High Schools	4,300
Transfer Academic/Comprehensive to Vocational High Schools	1,400
Transfer between Academic/Comprehensive High Schools	10,200
Transfer between Vocational High Schools	350

The mobility of students in all of the City's Vocational High Schools in 1974-75 is summarized by the following chart.

	Number of Students	
October 30, 1974 registers	43,218	
Changes during school year		
Dropouts	4,173	
Transfer to Academic/Comprehensive High Schools	2,934	
Move out of City	1,237	
Transferred to Special Schools Outside of Board of Education	143	
Other	122	
		-8,609
Moved into City and entered Vocational High Schools	463	
Transferred from Academic/Comprehensive High Schools	1,400	
		+1,863
Graduates		-6,511

In addition to the above, approximately 350 students transferred between Vocational High Schools in 1974-75 giving a total student movement, in and out of Vocational High Schools, of about 10,800 or 25% of the October registers.

Private and Denominational High School Populations

The denominational and private schools of New York City comprised a student population of over 347,000 in 1974 (Appendix Table VII) or approximately 24% of the total school registers of the City. The approximately 61,000 students in grades 10-12 represented 20% of all students in these grade levels.

The ethnic composition of the non-public schools in 1974 was distributed as follows:

Spanish Surnamed	13.2%
Black	10.1%
American Indian	0.2%
Oriental	1.0%
Other	75.5%

The following data represent the percentage of students of several ethnic groups in non-public high schools in comparison with total City student populations.

	% of Students in Non-Public Schools	
	Grades 10-12	All Grade Levels
Spanish Surnamed	8.8	12.9
Black	5.1	8.0
American Indian	39.1	54.0
Oriental	33.5	13.7
Other		
Total	20.2	24.0

According to data on the registers in non-public schools, between 1970 and 1974 registers declined at all grade levels with the largest decline taking place in the Elementary grades, as might be expected. Among the ethnic groups, the "Other" category showed the greatest decline, at all grade levels. The Spanish surname group of students declined in the Elementary grades and overall but showed increase in the Intermediate and Secondary levels.

Appendix Table VIII illustrates the 1974 registers of the private school component of the non-public schools in comparison with the denominational schools.

Private School Registers as % of Total Non-Public School Registers

Ethnic Group	Grades 10-12	All Grades
Spanish Surname	7.6	3.7
Black	28.3	19.3
American Indian	29.3	66.2
Oriental	30.8	17.2
Other	12.8	10.2
Total	13.7	10.4

Appen. Table IX presents a breakdown of the denominational school enrollments according to Borough, grade level and religious affiliation. It will be noted that approximately one half of the enrollments are in Roman Catholic schools. The next largest denominational schools are the Jewish Orthodox with about 11.3% of the total enrollment. The remaining 40% of the students are distributed among the grades and schools of some 13 different religious affiliated groups.

SECTION 3

DEMOGRAPHIC TRENDS

DEMOGRAPHIC TRENDS

Much of the following narrative is taken from the most recent source of public data for demographic trends in New York City: "Annual Planning Report, Fiscal Year 1977, New York City," issued by the Bureau of Labor Market Information, New York State Department of Labor.

New York City's population, like that of other large cities - especially those in the Northeast and the Midwest, decreased between 1970 and 1975 (see Table I). Residents of the City dropped from 7,896,000 to 7,603,000 according to the New York State Economic Development Board. (The Census Bureau, in a recent survey, put the City's population in 1975 at 7.5 million). The Economic Development Board expects a further population drop of about 48,000 a year in the 1975-1980 interval, with the total decreasing to 7,531,000 in FY 1977.

The population decline in the first half of this decade was not experienced equally by all boroughs (see Table II). The following insert gives population decline by borough from 1970 to 1974:

Population Changes (1970-74)[1]

Boro & Total	Populations[2]			Net Components of Change[2]	
	1970	1974	Change	Births Less Deaths	In Less Out (Migration)
Bronx	1471.7	1393.2	- 78.5	+37.8	-116.3
Brooklyn	2602.0	2448.1	-153.9	+71.5	-225.4
Manhattan	1539.2	1440.2	- 99.0	- 6.0	- 93.0
Queens	1987.2	1961.9	- 24.3	+24.2	- 48.5
Richmond	295.4	322.7	+ 27.2	+ 8.1	+ 19.1
Total NYC	7895.5	7567.1	-328.4	+135.7	-464.4

[1] Ref: Bureau of the Census, U.S. Department of Commerce.
[2] In thousands.

Manhattan, it is estimated by the Census Bureau, sustained the largest proportionate loss, Queens the smallest. In absolute terms, Queens also scored the smallest loss while Staten Island was the only borough to increase population. Apparently the population movement within New York City is to the as yet undeveloped areas, of which Staten Island is the prime example.

Not only the size, but also the ethnic mix of the City's population has been changing. The following tabulation, drawn from the Census Bureau Survey and published in the New York Times on April 19, 1976, illustrates that loss of white population represented the sole reason for the declining City population (see also Figure 1):

Population Group	Population		
	1970	1975	Change
White	5,304,383	4,641,056	-663,327
Black	1,615,348	1,644,494	+ 29,146
Puerto Rican	811,843	912,824	+100,981
Other	177,906	279,340	+101,434

TABLE I

POPULATION BY AGE AND SEX
NEW YORK CITY, 1970, 1975 and 1977
(in thousands)

Age and sex	Population						
	1977	1975	1970	Net change		Percent change	
				1975-1977	1970-1975	1975-1977	1970-1975
				Total			
Total	7,506.5	7,602.8	7,895.6	- 96.2	-292.8	- 1.3	- 3.7
14 and under	1,679.3	1,710.8	1,871.9	- 31.6	-161.1	- 1.8	- 8.6
15-19	595.7	624.4	602.4	- 28.7	22.0	- 4.6	3.7
20-24	647.9	637.4	649.7	10.5	- 12.3	1.6	- 1.9
25-34	1,197.8	1,186.3	1,075.7	11.5	110.6	1.0	10.3
35-44	850.5	834.8	915.7	15.7	- 80.9	1.9	- 8.8
45-59	1,218.4	1,268.9	1,405.6	- 50.5	-136.7	- 4.0	- 9.7
60-64	377.8	394.9	426.7	- 17.1	- 31.7	- 4.3	- 7.4
65 and over	939.2	945.2	948.0	- 6.0	- 2.8	- 0.6	- 0.3
				Male			
Total	3,531.5	3,574.4	3,703.7	- 42.8	-129.3	- 1.2	- 3.5
14 and under	853.7	869.9	951.6	- 16.2	- 81.7	- 1.9	- 8.6
15-19	303.1	317.4	297.8	- 14.4	19.7	- 4.5	6.6
20-24	311.4	302.7	292.3	8.7	10.4	2.9	3.6
25-34	587.9	575.8	513.4	12.0	62.4	2.1	12.2
35-44	402.1	396.6	432.0	5.5	- 35.5	1.4	- 8.2
45-59	549.0	570.2	633.9	- 21.2	- 63.7	- 3.7	- 10.0
60-64	160.5	169.2	191.7	- 8.8	- 22.5	- 5.2	- 11.7
65 and over	363.9	372.5	391.0	- 8.5	- 18.5	- 2.3	- 4.7
				Female			
Total	3,975.0	4,028.4	4,191.9	- 53.4	-163.5	- 1.3	- 3.9
14 and under	825.6	840.9	920.3	- 15.3	- 79.4	- 1.8	- 8.6
15-19	292.6	306.9	304.6	- 14.4	2.3	- 4.7	0.8
20-24	336.4	334.7	357.4	1.7	- 22.7	0.5	- 6.3
25-34	610.0	610.5	562.3	- 0.5	48.2	- 0.1	8.6
35-44	448.4	438.2	483.7	10.1	- 45.4	2.3	- 9.4
45-59	669.4	698.7	771.7	- 29.3	- 73.0	- 4.2	- 9.5
60-64	217.4	225.7	234.9	- 8.3	- 9.2	- 3.7	- 3.9
65 and over	575.3	572.8	557.0	2.5	15.8	0.4	2.8

NOTE: Detail may not add to totals due to rounding; net and percent changes computed on unrounded data.

SOURCE: Population projections of the New York State Economic Development Board, December 1975.

TABLE II

POPULATION IN NEW YORK CITY BY BOROUGH
1970 - 2000
(In Thousands)

	CENSUS		PROJECTIONS			CHANGE
	1970	1974	1977	1985	2000	1977-2000
New York City	7,895.5	7,567.1	7,506.5	7,840	8,000	493
Bronx	1,471.7	1,393.2	1,379.4	1,400	1,350	-29
Brooklyn	2,602.0	2,448.1	2,423.5	2,520	2,450	26
Manhattan	1,539.2	1,440.2	1,418.8	1,410	1,500	81
Queens	1,987.2	1,962.9	1,947.4	2,100	2,200	253
Richmond	295.4	322.7	337.5	410	500	162

According to experts, the above figures indicate that the number of blacks moving into the City is now exceeded by the number leaving the City. They also speculate that while the City is losing white middle class, it is gaining a black middle class. However, it was noted that this trend has been "temporarily" interrupted by the recession.

The Puerto Rican population increased by approximately 100,000 between 1970 and 1975; however, it has been noted that the rate of increase has decreased significantly since the 1960's. As a matter of interest, the Census Bureau found that in 1975 more Puerto Ricans were moving back to Puerto Rico than were leaving the Island.

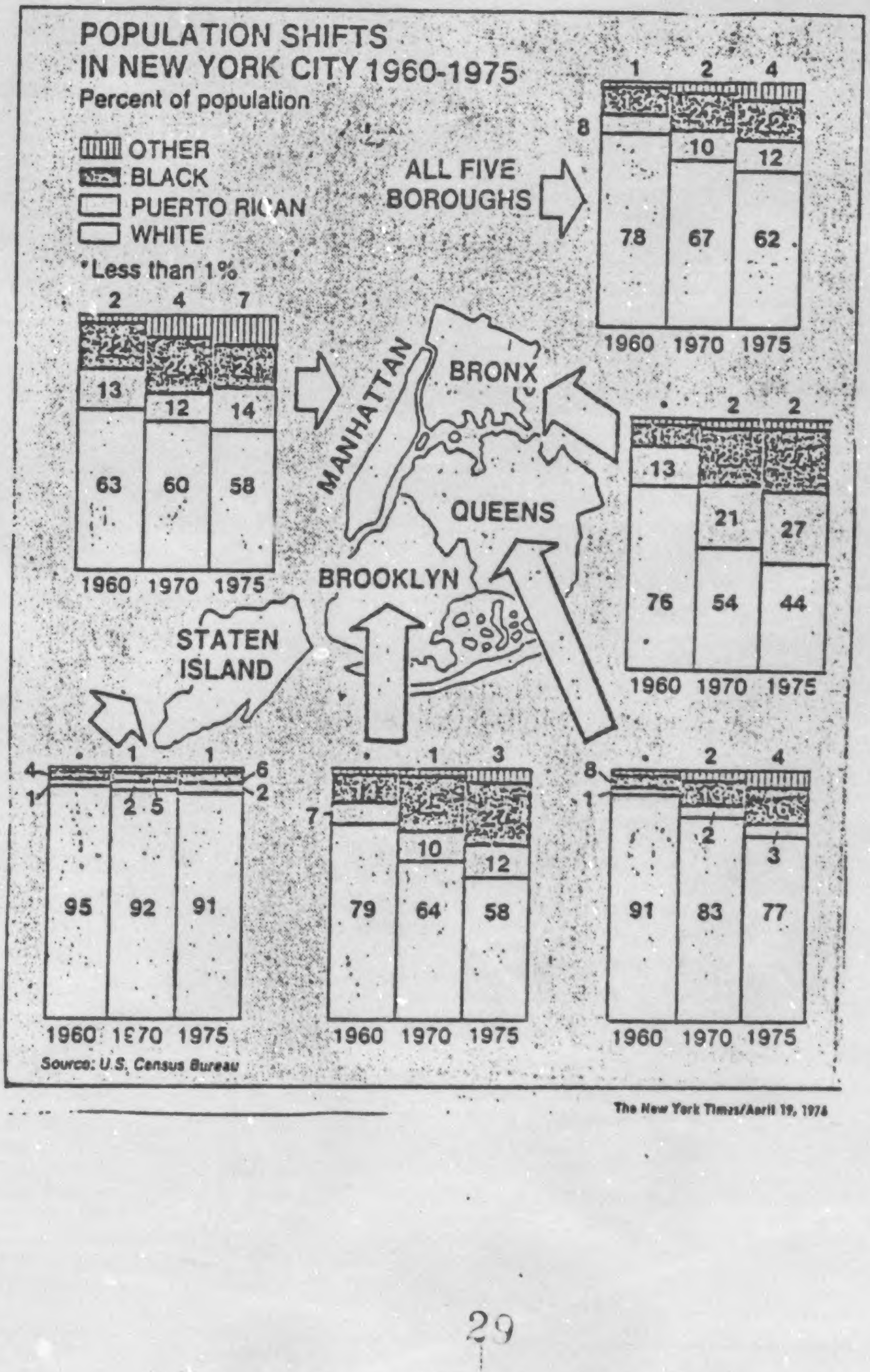
Figure 1 indicates the effect of these gross population changes on the ethnic composition of the borough's populations. Overall, the Black and Puerto Rican populations regularly and now represent 22 and 12%, respectively, of the City's population. In comparison, the white populations has declined from 78% in 1960 to 62% in 1975. With the exception of Manhattan, the Black population increased in all boroughs, percentage-wise, between 1970 and 1975. It will also be noted that the Puerto Rican population increased in all boroughs as did the "Other" populations.

The consensus is that, in the next 10 years, most boroughs of the City will become more Hispanic as the number of Puerto Ricans and other Hispanics increases. There are some who say that, if full account were taken now of all persons of Latin American origin, the Hispanic population of the City would already exceed 1.5 million and Brooklyn and Queens might very well show a majority of Blacks and Hispanics at present.

The age composition of the City's inhabitants is also changing, in response to changing patterns of marriage and fertility (people are marrying later, having fewer children and having them later in life, divorces are more frequent) as well as to declining mortality rates and shifts in migration patterns (in-migration of Blacks from the South and of Puerto Ricans from the island has declined appreciably while the exodus of whites from the City has accelerated in the Seventies).

The pre-school and school age population is decreasing as is the working age population except for those in the 25-34 year-old group. In part, this reflects the postwar baby boom. In the balance of this decade, the number of persons aged 20-44 is expected to grow; these are persons in the prime working years. With the proportion of teenagers in the population going down from 1975-1977, the pressure they have been exerting on the job market should begin to ease. At the same time, older persons in the population are increasingly leaving the labor force and opening up the job opportunities for younger persons. (Also see Table III for educational attainment, by age group).

FIGURE 1



Source: U.S. Census Bureau

The New York Times/April 19, 1976

TABLE III

EDUCATIONAL ATTAINMENT, NEW YORK CITY
(Based on 1970 Census)

	NO. TOTAL POPULATION[1]	NO. WHITE	NO. NEGRO	NO. PUERTO RICAN[2]
TOTAL POPULATION, 25+ YRS[3]	4,775	3,854	843	345
25+ W 4 YRS COLL. OR MORE	507	455	34	4
25+ W 4 YRS H.S. OR MORE	2,240	1,860	342	69
25+ W ONLY 4 YRS H.S.	1,351	1,084	252	57
25+ W 8TH GR OR LESS	1,603	1,292	280	195
MEDIAN SCHOOL YRS COMPLETED	11.52	11.71	10.92	8.52
TOTAL POPULATION, 18-24 YEARS[3]	875	673	184	105
18-24 W 4 YRS H.S. OR MORE	610	496	102	38
18-24 W LESS THAN 4 YRS H.S.	265	177	81	66
18-24 ENROLLED IN SCHOOL	267	218	41	17

[1] In thousands.

[2] The figures for the Puerto Rican population are not additive: they may be included in both White and Negro figures.

[3] The figures for Total Population are not additive.

WORK-FLOW PATTERNS OF BOROUGH WORKERS AND RESIDENTS

Data developed by the Tri-State Regional Planning Commission, from 1970 census data, permits estimates of flow patterns of workers between Boroughs and surrounding areas. This information, shown graphically in Appendix X and summarized in the following Tables, indicates several interesting points. For example, Table IV-A summarizes the number and source of Borough workers and indicates that:

1. 17% of the NYC job holders came from outside NYC and from counties of the greater metropolitan area. This figure would be slightly higher if workers from more distant areas had been taken into account. Among the Boroughs, this percentage varied from 6% (Richmond) and 8% (Brooklyn) to 20% (Manhattan).

2. 38% of the workers came from Boroughs other than these in which they resided. The range was from a low of 9% for Richmond to a high of 52% for Manhattan.

3. 45% of the workers worked in the Borough in which they resided; the range was from 28% for Manhattan to 85% for Richmond.

In summary, about 30-35% of the job holders in Boroughs of the Bronx, Brooklyn and Queens come from outside the Boroughs. In the Bronx this amounts to 80,000 jobs, and in Brooklyn and Queens 163,000 and 175,00 jobs, respectively, that were held by non-borough residents. As expected, over 1.5 million workers in Manhattan come from outside the Borough.

Table IV-B summarizes the work locations of Borough residents. From this data it will be noted that:

1. 5.5% of the Borough residents worked outside NYC in other counties of the greater metropolitan area. The percentage ranged among the Boroughs is from 4-8%.

2. An average of 43% of NYC workers worked in counties other than those in which they resided. This figure is lowest for Manhattan (10%) and in other Boroughs the range is 47-59%.

3. An average of 51.5% of NYC workers hold jobs in the counties in which they reside. Manhattan has by far the highest percentave (86%) while others fall in the 36% to 49% range.

Excepting Manhattan, an average of 55% of the Borough residents work in Boroughs other than the one in which they live and 6% work outside NYC.

From the standpoint of educational planning we need to recognize that the large numbers of the trainees will not find employment in the Boroughs in which they reside. As a matter of fact, a significant percentage of workers residing in the Boroughs of New York City will find employment outside of the City, primarily in the neighboring counties of the greater metropolitan area. In all likelihood even larger numbers of workers will be employed outside of New York City in the future. This means that students and, in fact all trainees, should be made aware of the opportunities and areas for employment in other Boroughs and in areas surrounding New York City. This involves, not only knowledge of the number and types of job openings, but also the training requirements, tax situations, problems with transportation, etc.

TABLE IV-A

Source of Workers in NYC Boroughs

	Numbers of Workers		
Borough	From Outside NYC(1)	From Other Boroughs(1)	Borough Residents
Bronx	41,832	37,285	184,811
%	16	14	70
Brooklyn	51,621	110,943	458,578
%	8	18	74
Manhattan	426,498	1,087,434	586,377
%	20	52	28
Queens	87,981	87,640	313,242
%	18	18	64
Richmond	3,834	5,530	51,401
%	6	9	85
Totals	611,766	1,328,832	1,594,409
%	17	38	45

TABLE IV-B

Work Location of Borough Residents

Borough	In Other Boroughs	Outside of NYC	In Borough of Residence
Bronx	288,916	36,259	184,811
%	57	7	36
Brooklyn	444,669	31,600	458,578
%	48	3	49
Manhattan	67,675	29,804	586,377
%	10	2	86
Queens	475,654	66,006	313,242
%	56	8	36
Richmond	51,918	6,109	51,401
%	49	6	47
Total	1,328,832	169,778	1,594,409
%	43	5.5	51.9

SECTION 4

ECONOMIC CONDITIONS AND THE LABOR MARKET

ECONOMIC CONDITIONS AND THE LABOR MARKET

It is far beyond the scope of this report to attempt an independent analysis of economic conditions of New York City or to improve on the reports that have been published by the New York State Department of Labor,(1,2) and the FY '77 CETA Plan of the Manpower Planning Council.(3) These reports, excerpts of which are included as Appendix sections, present consistent predictions that employment of City residents will continue to decline in 1977 but that some relief in the City's unemployment situation and some moderate economic recovery may be experienced. Projections relative to improved economic conditions are rather guarded and even with modest improvements, the unemployment situation in the City will still be severe and worse than in most areas of the nation. Stated in statistical terms, unemployment is expected to drop from an average of almost 336,000 in 1976 to about 300,000 in FY '77 with a corresponding drop in jobless rate from an average of 11% to 10%. The 300,000 unemployment figure is included in a projected 867,000 City residents who will experience some form of joblessness in FY '77.(1) Appendix B, excerpted from the May, 1976, New York State Department of Labor report, presents information and statistics relative to the population groups in the unemployment projections.

Based on 1975 estimates, which will likely apply in 1977, the Boroughs of Brooklyn and Manhattan will have the highest levels of unemployment and Richmond and Queens will have the lowest levels, with the Bronx unemployment figure falling below that of Brooklyn but appreciably higher than Queens. The range may be expected to be from 7% to 11%, or higher.

It has also been estimated(3) that June, 1976 unemployment rates were distributed as follows:

	% Unemployment by Group	
Population Group	Male	Female
Whites	8.5	10.2
Non-Whites	16.0	6.6
Hispanics	12.3	20.2

Not only is unemployment high among the Hispanic population but, as shown below, this population group is estimated to show the greatest divergence when comparing the percent unemployment by ethnic groups with the percent of the labor force represented by the groups.

	% of Total Labor Force	% of Unemployed
Whites	63	55
Non-Whites	21	23
Hispanics	14	20

These data indicate that the Hispanic population is most severely affected by unemployment relative to this population degree of participation in the labor force. The higher unemployment of both non-whites and Hispanics may well be associated with the increased proportion of the group in the resident labor force. It is presumed that these labor force additions may have less education and fewer skills because these groups come from poorer and less developed areas of the nation and the world.(3)

The Annual Planning Report of the New York State Department of Labor(1) presents figures on average annual employment and job openings by occupations for FY '77. The figures, taken from pp. 63-73 of the Report, are included in this report as Table I, with the estimates of numbers of job openings resulting from expansion or decline of business, and those resulting from labor force separations. It should also be noted that the Department of Labor report makes several assumptions upon which the New York City projections for FY '77 are based. These assumptions, listed on pages 8 and 9 of the subject report, refer to economic, fiscal and sociological factors and not to the statistical treatment of the data. Among the assumptions are factors such as: 1) New York City will not default and Federal aid will stay at approximately the current level, 2) jobs will contract in every industry group, but the rate of decline will be less than that of the past two years, 3) the City's population will continue to shrink and out-migration will be the major factor, the result of the numbers of Black and White residents leaving the City exceeding the numbers moving in. To some extent, this outflow may be negated by an influx of Spanish-speaking persons, although it is expected that this in-migration will be a lower rate than in the 1960's.

Another significant assumption is that the labor force participation will likely decline from the current rate of 53.6%. Although labor force participation by youths, which has been declining as years of schooling have been increasing, may rise with the cutback in "open admission" to colleges, this will probably be offset by curtailed labor force participation on the part of some adult groups, particularly women. This stems in part from the increasing share of the City's population being made up of Spanish-speaking people who, as a group, have had a historically low rate of participation in the labor force. It is noted that particularly the Hispanic women have low involvement in the labor force, probably because of their lower average age and their need to remain at home to care for dependent children. Finally, growing numbers of people leave the labor force because of discouragement over job prospects and this is a trend that shows no sign of ending.

The employment outlook for FY'77 (Appendix Table XI) indicates less than fifty job categories where net employment is expected to increase between 1975 and 1977. Even in these selected occupational areas, the average change due to business growth is less than 100 jobs per year. It should be noted that many of these jobs are not likely to be available to the high school or college trained youth entering employment. In addition, these are the types of jobs that will not be available to trainees of the adult programs operated by the New York City Board of Education or by the Human Resources Aministration through CETA funding. In the FY '77 CETA plan(3) it is further pointed out that many of the job opportunities, particularly those in the professional and technical occupations, are beyond the expectations of the relatively short time classroom training and on-the-job training programs available under CETA. Other indicated job opportunities, which are clearly within the reach of the CETA trainees, offer little prospect for eventual economic self-sufficienty, due to the temporary or seasonal nature of demand. This, of course, also applies to the trainees from high school or public Adult Occupational Education Programs.

The real opportunities for employment for trainees entering the job market will result from the demand to replace workers separated from employment for reasons of retirement, death, relocation, etc. Overall it is estimated that 143,700 job openings will result each year from workers leaving the labor force. Obviously, in a declining job market, some of the replacement openings will not be filled, but they will still represent a large number of employment opportunities. In this regard, it has been estimated(1) that the distribution of openings, according to employment areas, will be as follows:

	% of Total
Professional, Technical & Kindred	15.8
Managerial	7.1
Sales Workers	7.7
Clerical	35.3
Craft Workers	5.8
Operatives	10.8
Service Workers	16.1

Data presented in Appendix Table XI indicates approximately 75 job categories where replacement openings may represent more than 500 job opportunities each year. It should be noted, however, that approximately 25% of these job categories are in the Professional, Managerial and Administrative areas and are therefore, relatively inaccessible to the inexperienced applicant.

Table V represents a listing of job categories, and the corresponding number of estimated replacement job openings, for those occupations expected to have more than 500 job openings per year. This table does not include those occupations in the Professional, Administrative and Management areas, and therefore, should represent job openings for entry level employment. As expected, the greatest number of occupational categories and job openings fall in the Clerical and Secretarial occupational areas. A number of occupations in the category of Sales Workers are included, with the largest number of replacement job openings being related to the category of Sales Clerks. Also in the category of Operatives, there are some 9 occupations with estimated replacement openings of 500 per year or more. Sewers and Stitchers represent the single largest number of job openings.

In the occupational area of Craft Workers and Kindred occupations, only the occupations of Carpenters and Painters have estimated replacement job openings of 500 per year. However, in the area of Service Workers, there are several occupational categories that are expected to provide annual job openings in the range of 500 to 2,500. The largest among these are Hairdressers, Cosmetologists, Nurses Aides and Orderlies, Waiters and Waitresses, Guards, Cooks and Cleaners.

It should be kept in mind that while specific occupational categories that will have 500 or more openings in 1977, many of the job categories with fewer indicated openings still represent significant employment opportunities. Educational planners know that often if there are only 100-300 openings in certain occupations become significant for training purposes (e.g. Computer Programmers, Radio and TV Repairers). Furthermore, other occupations, in which less than 100 occupational openings have been projected in the past, have been areas for successful placement of large numbers of trainees. Those results were achieved through cooperative and diligent efforts of education and industry representatives. These efforts not only involved a thorough investigation of numbers and types of job openings, but also identification of specific training requirements and development of Curricula and program around these requirements. Obviously, cooperative job development efforts are critical elements of the total process.

According to a July 1976 report by the Bureau of Labor Market Information(2), job openings for Health Professionals were substantially higher than January 1975 levels. Much of the increased demand for Medical Workers was related to calls for Technologists and Laboratory Assistants. There was also some increased demand for Nurses and Therapists.

In the Financial field specialists such as Accountants, Auditors and Underwriters were in greater demand than a year ago. Openings for Clerical and Sales personnel accounted for almost one-third of all openings received by the Employment Service of New York City in the first half of 1976. Openings for Secretaries increased as demand continued to be relatively strong in this occupation. There was a similar pick-up in openings for Typists and Messengers. In the Sales field, demand remained low in most job categories, despite a typical seasonal upturn between January and June.

Job openings for Service Workers by the end of June 1976 had increased appreciably over January levels, but were still some 18% below the levels of June 1975. This also applied to occupations as Barbers, Cosmetologists, Guards and Building Service Workers.

Further details or recent manpower developments are presented in Appendix C (pp. 5-11 excerpt from the July 1976 report of the New York State Department of Labor).

It has been noted on several occasions that, with a large number of City residents seeking work, the low level of demand has allowed employers to become highly selective in hiring by raising the minimum experience and skill requirements of the jobs. As a result, entry-level job seekers have had the most difficulty finding work. In mid-June 1976 only 15% of job openings placed with the Employment Service specified six months or less of experience. The corresponding figure a year ago was 24%. Of all total job openings on hand at the end of June 1976, 15% specified six months to one year of experience, while 45% required one to two years and nearly 25% demanded at least two years of related experience. There is, however, wide variation on minimum experience requirements among occupational groups. For example, less than 5% of openings in Machine Trades, Benchwork, Structural Work and Professional areas were regarded as entry-level, as against about 33% of the Service, Processing, Clerical and Sales openings. It is readily apparent that an experienced worker has a substantial edge over the entry-level job seeker as a result of the imbalance of supply and demand in the labor market.

It has been further pointed out that because of the slow unbalanced upturn in the City's economy, employers in many industries enjoying business increases have found that a lengthened work week and productivity gains, often precluded the necessity of an expanded staff. In other areas where business activities are still depressed, there is no need for additional personnel. Only a few industries, largely in the manufacturing sector, have realized enough increase in business to require net additions to the staff over 1975 levels. Even in these cases, employment levels have not approached pre-recession levels.

While the data cited above is useful in providing gross employment projections for the City, it falls far short of the type of labor market data required for educational planning. Job projections from the major sources--the Federal and State Departments of Labor--are extrapolated from 1970 census figures and other bases, using a complicated methodology. This results in a time lag which renders the projections out-of-date by the time they are released and also results in across-the board downward or upward projections which often mask exceptions to gross trends.

For educational planning, it must be recognized that the levels of job openings are at least as critical as the *numbers* of job openings. For example, if 100 openings are projected for a given occupation, and 100 individuals have completed training for employment in the occupation, one still has a limited amount of useful information. One also needs to know how many of the job openings are for entry-level employment vs. how many require advanced training. Of course, one also needs to know what proportion of the trainees were prepared for entry-level vs. advanced positions.

Thus, in facing the task of relating job openings with training needs, one not only requires more precision in a quantitative sense, but also qualitative information. In a complex and changing system, and especially in one as large as New York City, present available employment information has very limited value for educational purpose.

Until the information that is developed, analyzed and disseminated by government agencies become more reliable information and current educational system is better off using information developed by other methods. Such methods may entail employer surveys, samplings of business employment and training needs, education/industry collaboration via Advisory Commissions or Task Forces, or even the solicitation of information (semi-quantitative or even informed estimates from knowledgeable industry representatives).

[1] *Annual Planning Report: Fiscal Report 1977--New York City*, Bureau of Labor Market Information, Division of Research and Statistics, NYS Dept. of Labor, May 1976.

[2] *Area Manpower Review, July 1976--New York City, Division of Research and Statistics, NYS Dept. of Labor, July, 1976.*

[3] *1977 Title I Grant Application, Part II*, Comprehnsive Employment and Training Act, Manpower Planning Council, Human Resources Administration of the City of New York, 1976.

TABLE V

Occupational Area and Job Category	Est. Number of Annual Job Openings Resulting from Labor Force Separations*
Sales Workers	
Insurance Agents, Brokers, etc.	600
Real Estate Agents, Brokers	500
Sales Agents, Securities	600
Sales Representatives, Mfg.	800
Sales Representatives, Wholesale Trade	1,600
Sales Clerks, Retail Trade	5,700
Sales Associates, Service & Construct.	600
Clerical Workers	
Secretaries, Legal	600
Secretaries, Other	14,100
Stenographers	500
Typists	6,000
Office Machine Operators	
Keypunch Operators	1,100
Other Clerical Workers	
Bank Tellers	1,000
Billing Clerks	500
Bookkeepers	6,000
Cashiers	2,000
Counter Clerks, Except Food	700
Estimators, Investigators, n.e.c.	700
File Clerks	2,900
Mail Handlers, Except Post Office	700
Messengers and Office Helpers	900
Payroll, Timekeeping Clerks	500
Postal Clerks	700
Receptionists	1,400
Shipping, Receiving Clerks	800
Statistical Clerks	1,200
Stock Clerks, Store Keepers	600
Teachers Aides, Except Monitors	600
Telephone Operators	1,800
Craft Workers, Supervisors, Kindred Occupations	
Carpenters	500
Painters, Construction, Maintenance	500

* Excluding Professional, Managerial and Administrative occupations and occupations with replacement job openings less than 500 per year.

TABLE V (Cont'd)

Occupational Area and Job Category	Est. Number of Annual Job Openings Resulting from Labor Force Separations*
Operatives	
Packers, Wrappers, Except Meat & Produce	1,100
Assemblers	600
Clothing Ironers and Pressers	600
Sewers and Stitchers	5,500
Machine Operators, Misc. Specified	700
Operatives, n.e.c.	800
Delivery Drivers	500
Taxicab Drivers, Chauffeurs	800
Truck Drivers	700
Service Workers	
Cleaning	
Room Cleaners, Except Private Hshld.	500
Cleaners and Char Workers	2,500
Janitors and Sextons	2,200
Food	
Cooks, Except Private	1,100
Waiters/Waitresses	2,000
Food Workers, n.e.c., Except Private	700
Health	
Health Aides, Except Nursing	500
Nurses Aides, Orderlies	2,000
Practical Nurses	800
Personal Service	
Flight Attendants	500
Attendants, Personal Service, n.e.c.	500
Child Care Workers, Except Private	500
Elevator Operators	500
Hairdressers, Cosmetologists	1,100
Protective	
Guards	1,300
Private Household	
Housekeepers, Private	500
Maids, Servants, Private	2,500
Laborers, Except Farm	
Freight & Material Handlers	500

* Excluding occupations with replacement job openings less than 500 per year.

SECTION 5

GOALS, OBJECTIVES, ACTIVITIES AND OUTCOMES

This section contains the hierarchy of goals for this annual and long-range plan. The accompanying activities are, where applicable, keyed to a proposal number to identify the VEA proposal which is being submitted. Proposal numbers appear in parentheses with the appropriate activity.

A summary of VEA propsals for FY'77 is contained in Appendix D.

REGIONAL PRIORITIES FOR OCCUPATIONAL AND CAREER EDUCATION

MISSION: To provide opportunity for every student and adult in the Region to discover and fulfill his/her career aspirations, within a comprehensive and flexible system of educational services responsive to the labor force requirements of the City.

Planning

Develop and implement a viable, fully-coordinated system of Regional planning that will encompass all of the City's occupation-related training and supportive services, and provide bases for constructive changes in delivery systems.

Support the development of up-to-date job market information that will accurately reflect employment needs not only with respect to types and numbers of job openings but also to employers' training requirements for each job category.

Coordination and Management

Effect a city-wide, coordinated network of Occupational Education that will provide information, referral and access to training program(s) and related supportive services that are consistent with individual needs, interests and capabilities.

Develop and establish improved processes for coordinated funding for Occupational and Career Education programs that will expand and maximize the benefits of reimbursable funding.

Increase the flexibility of occupational instruction to meet the pressure for increased and diversified service to indivuduals in urban settings.

Staff Development

Promote and support staff development efforts at all educational levels, to enhance the effectiveness of personnel engaged in the delivery of Career and Occupational Education programs and services.

Monitoring and Evaluation

Implement expanded and improved methods for formative as well as summative evaluation of all Occupational Education and Career Education programs.

Facilities and Equipment

Effect continuing improvements in the programs, curricula, facilities and equipment associated with Occupational Education to assure consistency with training needs of students and with the current demands of industry and post-secondary training/education.

Develop means of expanding and upgrading the facilities and space available for occupational education.

Curriculum

Insure the relevance of occupational curricula to current job practices through systems of identifying, selecting and updating content.

Curriculum (Cont'd.)

Continue and expand the development of updated, relevant and modular curriculum components in all occupational areas and assist in the implementation and evaluation of these curriculum materials and the related educational processes.

Improve and expand the development and diffusion of new ideas in occupational education.

Articulation between Grade Levels, Departments and Schools

Expand articulated programs between institutions, schools and grade levels that offer sound, economical educational bridges for maximization of student and staff developments.

Career Education

Expand and strengthen, with linking funding support, the planning, development and implementation of Career Education at all grade and age levels within the New York City Board of Education system.

Provide leadership in the planning and development of a viable system that will infuse Career Education into all disciplines career awareness, exploration and training programs.

Adult Occupational Education

Develop and effect a viable system for the coordination, management and funding of services for out-of-school youth and adults with respect to Basic Adult Education, Bilingual Education, High School Equivalency, ESL and Occupational Education (Pre-Employment, Apprenticeship and Occupational Extension programs).

Community and Industry Relations

Develop increased involvement of industry, government, and the community through expanded use of media, and through diversified strategies for outreach.

Disseminate information relating to the nature and benefits of occupational education, through a systematic program of activities, designed to reach all segments of the community.

Work Experience, Placement and Follow-up

Expand opportunities for students to explore and practice job skills in both community and school settings.

Develop pre-employment job readiness programs and post-employment follow-through activities for assisting students in their transition from school to work.

Work Experience, Placement and Follow-up (Cont'd.)

Coordinate and expand efforts at all levels to place students in occupations and in educational programs related to their training.

Improve and expand follow-up studies of students and their employers.

Academic Support Services and Remediation

Provide opportunities for all occupational students and trainees to acquire the reading, communications and math skills required for course work, training and employment.

Special Population Needs

Promote and support the development and implementation of expanded programs of Occupational Education for bilingual, handicapped and disadvantaged populations of the City and to actively support job development programs that will lead to the employment of trainees.

Guidance and Counseling

Assist in providing comprehensive guidance and counseling services that will better prepare occupational students to select and cope with educational programs and careers suited to their interests and abilities.

Occupational Education Research

Plan and conduct research studies that will provide basic information for the development and/or improvement of Occupational Education programs at all age and grade levels.

Research and develop information that will serve as bases for training programs to prepare youths and adults for participation in emerging fields of employment.

Post-Secondary Planning and Programs

Develop a comprehensive and coordinated plan for Occupational Education and related supportive services that will reflect a system-wide merger of efforts consistent with budgetary limitations and population needs.

Develop additional articulated programs with secondary schools in expanding training opportunities and in developing educational bridges that will facilitate students' transition from secondary to post-secondary programs.

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Population Served: Regular & Disadvantaged

Level: Elementary/Intermediate/ Junior High School

Goals	Objectives	Activities	Expected Outcomes
1. Provide students with a developmental educational sequence to foster attitudes, understandings, and skills to prepare them for the world of work.	1. Expand Model to six new middle and six new elementary schools in six new districts. Add two new high schools to expand existing programs. (PROM)	1. Occupational specialists will conduct training sessions in target schools. School staff to be trained in classroom implementation and school--team management (7045).	FY 1977 An estimated total of 20,045 students will be involved. Districts and schools previously involved in Model will maintain contact through participation of staff in training of new occupational education teams. FY 1978 12 additional districts 24 I.S./J.H.S. 24 Elementary Schools 6 New High Schools
	1.1 Provide staff development to expand existing programs in Evander Childs, Boys & Girls High Schools and I.S 193X to involve at least 60 teachers.	1.1 Increase teacher involvement and improve coordination of all High School programs for purpose of developing field placements and new experiences and exploration activities for the entire school (7045).	
	1.2 Provide resources in occupational education through a central Occupational Education Dissemination Center.	1.2 Dissemination Center will provide a data bank with information on programs, including multi-media displays and portable, packaged lessons. Staffs of SCECAMP, ICE, & other OCE resources will participate (7045)	A multiplier effect will be felt within schools, and throughout districts, expanding the impact of career/occupational education beyond the designated target population, to affix approximately 100,000 elementary/intermediate and secondary students by 1980.

Population Served: Regular & Disadvantaged (Cont'd.) Level: Elem./Interm./Junior H.S.

Goals	Objectives	Activities	Expected Outcomes
		1.2.1 New occupational center will operate in tandem with BEVG Central Career Education Resource Center and other District Career Resource Centers (7045).	
2. Improve the bases for informed decision-making involving business community resources, as well as parents in career education activities.	2. Increase the number of Elementary/Intermediate schools involved in work-related educational activities-programs, fairs, visits with participation of business, and the community.	2. Through training directed towards school personnel, through special assembly programs, school fairs, arranged school-business intervisitations-stimulate school interest in the world of work (7006).	
		2.1 Through linkages with Districts, periodic liaison meetings with District Leaders, Newsletters, and special events, provide career education leadership throughout the 32 Community School Districts (7001).	
3. Direct the focus of the separate disciplines towards improved career and world of work understandings.	3. Provide hands-on experiences to elementary school children through Industrial Arts programs using tools and technologies in Mobile Technology vans.	3. Awareness of technologies, tools, and processes will be provided in mobile vans, geared to serve career awareness programs in elementary schools.	

Population Served: Regular & Disadvantaged

Level: Elementary/Interm./
Junior High School

Goals	Objectives	Activities	Expected Outcomes
	3.1 Infuse academic disciplines with activities and experiences to heighten career/occupational awareness.	3.1 Continue in-plant printing programs, Careers for Children, and other career-oriented academic projects (7003).	Increased relevancy of the academic disciplines and general enrichment of programs result when a career focus is infused into the curriculum. Greater understandings of the world of work and of career options will encourage informed career decision-making. Present activities will be expanded as follows: In-Plant Printing FY'77 - 10,200 FY'78 - 12,500 FY'80 - 15,000 Careers for Children FY'77 - 1200 FY'78 - 1500 FY'80 - 1600 Mobile Units FY'77 - 1800 FY'80 - 2100 Publishing Activity Centers FY'77 -111,000, FY'78 - 125,000, FY'80 - 150,000 Communications Activity Centers FY'77 - 120, FY'78 - 120, FY'80 - 150 Construction Activity Centers FY'77 - 570, FY'78 - 700 Enterprise Experience Program FY'77 - 2,800, FY'78 - 2,800 FY'80 - 3,000 270,000 Regular Industrial Arts Programs
	3.2 Provide try-out experiences in career clusters of manufacturing, communications, Business & Distributive Education, through Enterprise Experience Program (Intermediate level).	3.2 Simulated world of work experiences, involving exposure to a range of career clusters, will be offered (7004).	

Population Served: Regular & Disadvantaged

Level: Elemen./Interm./
Junior High School

Goals	Objectives	Activities	Expected Outcomes
	3.3 Expose increased numbers of elementary/intermediate students to career clusters in Agriculture, Health, Home Economics, Business-Education."	3.3 Design strategies for implementing agricultural awareness program in District 18. Provide resource materials for elementary and intermediate teachers for adapting curriculum. (7028)	FY'77 - 75,000 FY'78 - 125,000 FY'80 - 150,000
		3.3.1 Develop a plan and timetable for Health Career Awareness programs on the District level. Select model districts and responsive community superintendents for implementation of plan. Complete and field test six career awareness modules in eight elementary schools. (7030)	FY'77 - 300 students in each of eight elementary schools will be involved. FY'77 - 2,400 FY'78 - 3,000 FY'80 - 5,000 Students will benefit from direct exposure to clusters and disciplines which will encourage more knowledgeable selections of high school options.

Population Served: Regular & Disadvantaged

Level: Elemen./Interm./
Junior High School

Goals	Objectives	Activities	Expected Outcomes
		3.3.2 Complete six career exploration modules for implementation in 16 intermediate schools, including hands-on experiences, field trips, etc. (7036)	FY'77 - 150 students in each of the 16 schools (Total 2,400 students) FY'78 - 150 students in 16 schools. (Total 4,800)
		3.3.3 Implement retraining program for 16 Home Economics teachers (September, 1976). Five in-service sessions for Home Economics Teachers will be undertaken. (7035)	
	4. Improve world of work readiness through modular studies in consumerism provided in 24 schools.	4. Modules in consumerism and home management will be introduced in eight elementary and 16 intermediate schools. (7036)	FY'77 - 4,000 elementary and intermediate students exposed to modules in consumerism FY'78 - 5,000 FY'80 - 10,000
5. Through direct exposure to try-out and work-experience, improve motivation and performance of disaffected intermediate students.	5. Provide try-out and exploration experiences to students in District 2 (Clinton School) including work-experience.	5. Clinton students will have exploration opportunities and work experience in local business enterprises, learning aspects of communication, printing, advertising	FY'77 - 450
	5.1 Continue referral for try-out experiences for disaffected intermediate students in Distirct 25.	5.1 Program of shop experience and career guidance will be provided to students in District 25, Queens. (7042)	FY'77 - 125 FY'78 - 125 FY'80 - 200

Population Served: Regular & Disadvantaged

Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
1. Meet the occupational needs of secondary students by providing a diversity of training options, consistent with current and anticipated job market needs.	1. Provide innovative curriculum to meet individual and special student needs in business and distributive education.	1. A modular bookkeeping program will be introduced in one high school to 60 students. (7056)	FY'77 - 60 FY'78 - 180 FY'80 - 350
		1.1 Three distributive education curriculum programs in Fashion Merchandising, Travel and Tourism, and Real Estate will be offered to 600 students. (7056)	FY'77 - 600 FY'78 - 1000 FY'80 - 1200
		1.1.1 Introduce a new Fashion Technology course in one high school.	FY'77 - 30 FY'78-'80 - 60
		1.1.2 A new business management program will be introduced in one school.	FY'77 - 35
		1.2 Unit skills business courses will be extended to non-business seniors to prepare them for entry level employment. (7057)	FY'77 - 250 FY'78 - 300 FY'80 - 500
		1.3 On-the-job experiences in bookkeeping will be made available in an internship program. (7057)	FY'77 - 100 FY'78 - 100 FY'80 - 100
		1.4 Keypunch and Key-to-disk operation will be provided to students to increase their employability.	FY'77 - 300 FY'78-'80 - 300 Updated curriculum modes will improve employment skills and prospects of business students.

Population Served: Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
2. Upgrade student competencies in business skills by providing supportive basic training.	2. Expand Business Mathematics program to two additional schools, encouraging students to improve computation and math achievements.	2. Calculators will be made available to benefit additional numbers of students requiring improvement in math. (7056)	FY'77 - 280 FY'78 - 550 FY'80 - 750
	2.1 Improve English language competencies of Spanish-speaking students through typing instruction.	2.1 Typing skills will be provided to disadvantaged secondary students for dual purpose of improving both language competencies and providing typing skills.	FY'77 - 40 FY'78 - 100 FY'80 - 300
3. Diversify training programs through pilot programs in emerging business areas.	3. Provide Retail Management and Franchise Management training to disadvantaged students, enabling them to enter employment or advance to further training in post-secondary institutions.	3. Middle management techniques will be taught in a pilot program aimed at disadvantaged students in one high school. (7057)	FY'77 - 340 FY'78-'80 - 350
		3.1 Franchise Management procedures will be presented to disadvantaged students in one high school.	FY'77 - 120

Population Served: Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
4. Insure student training which is consistent with current industry practices through the updating and replacement of training equipment and facilities.	4. Provide programs to acquain disadvantaged students with modern calculator operation, with magnetic keyboard typewriters to improve employment readiness.	4. Through instructional programs, supported by systematic exposure to modern calculators, electric typewriters, and magnetic keyboard units (MC/ST) assist disadvantaged students to update their skills for entry level employment. (7056)	FY'77 - 14,000 FY'78 - 25,000 FY'80 - 35,000
			Students will have developed competencies in use of current equipment, and in current standards of office operations.
		4. With Division of High Schools, establish a three-year replacement cycle for manual typewriters; and an eight year replacement cycle for calculators, electric typewriters and transcribing machines.	

Population Served: Regular & Disadvantaged Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
(Cont'd.)	4.2 Provide appropriate metric calibrated measuring devices for use in high school home economics classes (Jan. 1977).	4.2.1 Systematic replacement of measuring equipment in most high schools will be completed by 1977 (7019, 7035)	FY'77 - Home Economics teachers in 60 high schools will be trained in metrication.
		4.2.2 Orientation sessions for teachers will be arranged and prepared lessons will be disseminated. Workshops on metrication for Home Economics teachers will be conducted in cooperation with the Bureau of Mathematics.	
	4.3 Continue efforts to convert classroom at Evander Childs High School to a restaurant and retail food operation. Employ a job developer to place students completing training.	4.3 Students will develop employable skills in restaurant and food service operation in preparation for entry-level employment. (7035)	FY'77 - 50 students FY'80 - 75 students
	4.4 Improve medical lab technician programs through the development of clinical support.	4.4 Medical laboratory technician instruction will be enhanced by supportive clinical experience (7067)	FY'77 - Franklin D. Roosevelt HS 50 students
	4.5 Develop standardized curriculum and instructional practices for all secondary health careers programs, including research into emerging specialties.	4.5 Disseminate revised Health Careers Curriculum Guide. Research occupational and placement opportunities in Gerontology, Thanatology, Rehabilitation. (7031, 7032)	

Population Served: Disadvantaged Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
5. Diversify career options for secondary students by improved use of present resources and by development of alternate strategies.	5. Increase present enrollments in agricultural career programs from 1,400-1,600 through expansion into new schools, through added programs for the handicapped, and through off-site facilities usage.	5. Through joint planning with staff of Shared Instructional Programs, through use of outside training sites, through the addition of schools and handicapped students, expand activities. (7021,7028,7029,7044,7014)	FY'77 - 1600 FY'78 - 1900 John Dewey H.S., DeWitt Clinton, (Ornamental Horticulture - Murrow Tottenville, Beach Channel, Thomas Jefferson)
	5.1 Standardize training practices and equipment to insure consistency with current industry practices.	5.1 Guidelines to insure equipment and training practices consistent with industry standards will be developed through collaboration of the Advisory Commission, teachers, supervisors, and the Division of High Schools.	
	5.2 Provide multiple exit points in the employment by developing specific skills competencies on graduated levels.	5.2 Through joint efforts of the occupational curriculum coordinator and discipline specialists, design modular or splinter skills for occupational training programs(7028, 7020).	
		5.2.1 Conduct studies to determine competencies required for entry-level employment in selected trades. (7059)	Frequent review of standards and practices will assure the appropriateness of agricultural programs in preparing students for entry-level employment and/or advancement to post-secondary training.
		5.2.2 Augment training in the aviation trades through continued Air Ground Support Vehicle Program at Aviation and East New York Vocational High Schools. (7062)	

Population Served: Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
	5.3 Offer new or modernized training programs consistent with change in technical and technological patterns.	5.3 Provide new programs in Mechanical Tahcnology in Medical Electronics, in Avionics, and Digital Electronics, in schools with identified student interest and capability. (7030)	McKee, Aviation, Westinghouse, Grady, Brooklyn Technical, August Martin - will have programs updated.
	5.4 Develop bilingual programs in selected schools	5.4 Develop bilingual class at Westinghouse and one at Aviation High School.	FY'77 - 50 FY'80 - 100 - 4 schools
	5.5 Provide three year program in Business Equipment Repair to expand offerings in multi-trade Vocational High Schools.	5.5 Tax-levy funds will be allocated for two new classes in Business Machine Repair at Eli Whitney Vocational High School.	FY'77 - 50

Population Served: Regular & Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
6. Update present trade and technical programs and develop new programs in response to industry and student needs.	6. Modernize equipment for drafting instruction in selected sites where programs are in operation.	6. Schools with ongoing drafting programs will replace out-dated equipment with industry approved tools and methods. (7038, 7039)	Modernization will affect: A.Hamilton VHS, East N.Y. VHS, Manhattan VHS, B'klyn Tech. HS, T. Edison VHS, A.E. Smith VHS, Chelsea VHS
	6.1 Improve electronics equipment in schools where programs represent major focus of training.	6.1 Upgrade instructional tools and equipment in basic electronic & dental lab courses, based upon current industry standards. (7038, 7039, 7041)	George Westinghouse Samuel Gompers Queens Vocational HS
	6.2 Develop programs in emerging electronic skills and technologies to prepare students for new job areas.	6.2 Initiate courses in medical electronics, marine radio communications, servicing digital electronics, Flight Control Instrument Systems, Avionics. (7038, 7039, 7041)	George Westinghouse J.W. Brown III Brooklyn Tech HS Ralph McKee VHS Aviation HS William E. Grady VHS August Martin HS
	6.3 Modernize equipment and instruction in Automotive programs in ongoing programs, and in welding programs.	6.3 Upgrade testing equipment, and instructional practices to meet current industry standards for automotive mechanics. 6.3.1 Upgrade welding systems at Manhattan Voc.H.S., McKee Automotive & Aviation (7055).	Automotive HS, Thomas Edison VHS, William E. Grady VHS, Ralph McKee VHS, Alfred E. Smith VHS, South Shore, Tottenville, Martin Van Buren
	6.4 Provide equipment for instruction in advertising, color photography, and media production in academic/comprehensive high schools.	6.4 Laboratories with modernized equipment in advertising, color photography, & media production will be provided in 4 new schools (7040, 7041, 7043).	N.Y. School of Printing, John F. Kennedy, Erasmus Hall, Art and Design, John Bowne, Edward R. Murrow.

Population Served: Regular & Disadvantaged Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
7. Expand cost-effectiveness of present services, and extend opportunity to greater numbers of students through flexible scheduling, and shared use of facilities.	7. Increase by 10% the number of students in shared instructional programs.	7. Through expansion of present course enrollments and addition of new courses, (including bilingual instruction), increase services to reach 1,500 students. (7044)	FY'77 - 1,500 FY'78 - 1,750 FY'80 - 2,000
	7.1 Extend benefits of shared instruction to handicapped students, to prepare them for entry level employment.	7.1 Develop course and modules for Building Skills program to serve screened handicapped students, with job development and/or placement services provided by DSEPPS. (7044)	FY'77 - 10 Special Education students FY'78 - 40 FY'80 - 50
	7.2 Conduct student vocational interest surveys as a basis for appropriate placement of students rejected from vocational high schools.	7.2 Select Junior High Schools and High Schools in Brooklyn, and in cooperation with Bronx Career Counseling Center, administer vocational interest inventory as a basis for shared instruction placement. (7058)	FY'77 - 500 Ninth and Tenth graders excessed from vocational high schools. FY'78 - 1,000
8. Introduce vocational training programs in schools previously unserved, to meet student need and interest, with special emphasis on academic/comprehensive schools.	8. Introduce training in electrical, electro-mechanical trades, and automtive mechanics in academic high schools.	8. Prospect Heights H.S. will provide a 3 year tax-levy program (1) in Electrical Work, (1) in Business Equipment Repair, and a new one year program in Jewelry-making.	FY'77 - 75 FY'78 - 150
	8.1 Provide new career training program in interior architecture and design.	8.1 Class for students at South Shore HS will be introduced in interior architecture and design (7074).	Students for whom home-school access to occupational programs is not available, will receive skills training in an appropriate receiving facility, with school credit, and scheduling consistent with their needs.

Population Served: Regular & Disadvantaged

Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
8. (Cont'd.)		8.1.2 The first trade program at Martin Van Buren High School will be a program in Auto Mechanics.	
		8.1.3 Charles Evans Hughes will introduce a new vocational electro-mechanical course.	
	8.2 Create a focus for arts careers training for secondary students in five high schools, and update in-plant graphics programs as required.	8.2 The New York Arts Career Campus will serve approximately 625 students - five high schools (7076) and in-plant program will be updated in one high school. (7079)	1977 Five High Schools 625 1978-80 1,000 N.Y. School of Printing 100

Population Served: Regular & Disadvantaged

Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
8. (Cont'd.)		8.1.4 A new two-year program in Advertising Studio Skills for three classes will be given at Kennedy High School. (7040)	Programs which were initiated on a pilot scale with VEA support will be made available to all students within the tax-levy structure.
		8.1.5 Bayside High School will introduce two classes in TV Repair, one in small engine repair.	
	8.2 Transfer to regular tax-levy programs innovative VEA programs of proven success.	8.2 VEA programs absorbed into tax-levy budgets for 1976 include the following: a. Media Programs at Tottenville H.S. & John Bowne. b. Business Equipment Repair at T. Edison, A. Hamilton and S. Gompers. c. Graphic Communications (equipment) at Brooklyn Technical High School. d. Marine Maintenance & Repair at Beach Channel High School.	
	8.3 Provide coordinator to generate and monitor VEA programs consistent with job market needs.	8.3 Trade and Technical Programs - Coordinator will assist in generating, implementing innovative programs. (7038, 7039, 7040)	

Population Served: Regular & Disadvantaged Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
9. Extend the benefits of work experience to students in trade and technical programs.	9. Provide job developers in 18 Vocational High School which lack placement services.	9. Resubmit proposal for CETA funding to support job developers in the 18 Vocational High School lacking placement services.	

Population Served: Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
9. Through flexible scheduling, extend occupational skills training to disadvantaged secondary students in public and private non-profit schools, with emphasis on unit skills preparation for employment entry.	9. To extend training opportunity to at least 5,000 disadvantaged students in 10th, 11th and 12th year through after school unit skills training in business, trade and technical and health careers.	9. Through stepped-up recruitment efforts, in public and private non-profit schools, and through flexible scheduling of programs and sites, increase present number of participants. (7009)	FY'77 - 5,000 FY'78 - 5,500 FY'80 - 6,000
	9.1 Develop bilingual training programs as needed, for students with limited English-speaking capabilities.	9.1 Using Bilingual, French and Spanish Auto Mechanics program at Automotive High School as a model, develop other bilingual curricula in response to need. (7044, 7009, 7077)	Students completing successive training stages will receive job placement assistance.

Population Served: Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
	9.2 Serve as a personnel resource, monitor, and curriculum supervisor to Adult Programs with Health Careers offerings.	9.2 Monitor and observe ongoing programs in Pre-Employment Program, in Manpower Development Training Program and provide curriculum direction, as needed. (7030)	
	9.3 Provide instructional/clinical experiences, and support services to increase successful completion of practical nurse training.	9.3 Develop support services including remedial aid for students in the Practical Nursing Program. (7068)	FY'77 - 11 high schools 700 Students

Population Served: Regular & Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
10. Enhance the relevancy of school learnings and improve student retention through diverse work experiences in both paid and voluntary placements.	10. Through part-time and alternate week cooperative education work programs, improve the academic performance, and attendance of participating 11th and 12th year students.	10. With the cooperation of the business community and job development teams, obtain paid work sites for students in office, secretarial, agriculture (related trades) trade and technical, and health occupations. (7022, 7023. 7024, 7026, 7027,7084, 7083)	7,500+
		10.1 Murrow, Bowne, Tottenville students will work in off-site multi-media production activities. (7061)	FY'77 - 60 FY'78 - 60
		10.2 Supportive educational experiences and job preparation skills will be given to marginal and neophyte Cooperative Education students. (7022 - 7023,7082)	
11. Extend the benefits of combined school/work-experience to diverse student populations with special needs, in a wide range of business exposures.	11. Provide course related job experiences to disadvantaged and handicapped students in municipal, school, and other public agencies.	11. Paid Work-Study job slots will be allocated to disadvantaged secondary students for 15 hours every two weeks, in clerical and other course-related jobs, through the support of Neighborhood Youth Corps. (7005)	FY'77 - 450 FY'78 - FY'80 - 450 Experience has demonstrated that school learnings have fuller impact as a result of job-related experiences; earnings from employment encourage disadvantaged students to remain in school until graduation.

Population Served: Disadvantaged **Level:** Secondary

Goals	Objectives	Activities	Expected Outcomes
		11.1 Human Service internships, offering job experiences in social service agencies will be developed for public and private non-profit secondary students. (7018)	FY'77 - 200 FY'80 - 250
		11.2 Business and Health Careers job placements will be continued for the 640+ students in the four Satellite Academies. (7060)	FY'77 - 650 FY'80 - 650
		11.2.1 Activities in alternate schools will be expanded to include job placement (Lower East Side Prep).(7033)	
		11.2.2 A training program for Child Care sites will be further developed in the High School Redirection Program. (7002)	50 students will participate.
		11.2.3 Work-related experiences will be provided for students in City-as-School. (7007)	FY'77 - 50 FY'80 - 50 An enriching,motivational dimension will be provided to students in alternative school settings through job experience.

Population Served: Regular & Disadvantaged Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
	12. Centralize and coordinate job development efforts to avoid duplication and to develop specialized corps of professional personnel through the Cooperative Education Bureau.	12. Joint job development resources will provide non-duplicative and comprehensive services, available to all schools and programs. Centralized supervision of all work-experience activities will insure sharing of benefits. (7022 - 7023)	

Population Served: Regular & Disadvantaged Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
	12.1 Continue experiences in Job Development training for students at Martin Luther King Jr. High School.	12.1 Job development Center at Martin Luther King Jr. High School will provide both personnel management experience and job placement to students. (7046)	FY'77 - 450 FY'80 - 600

Population Served: Disadvantaged

Level: Secondary

Goals	Objectives	Activities	Expected Outcomes
13. Promote career interest and civic awareness among students through participation in club activities.	13. Increase the numbers of students who participate in career clubs related to their school learnings.	13. Recruitment activities and programs will be expanded to involve increased numbers of students in the Vocational-Industrial Clubs of America (VICA). (7039)	FY'77-10 vocational high schools FY'78-14 vocational high schools
		13.1 Home Economics Clubs will be increased to 32 (Future Homemakers of America).	FY'77 - 1,320 FY'78-FY'80 - 1,500
		13.2 Increased Chapter of Future Farmers of America (FFA) from one to three, with assistance of present officers of FFA chapter at John Bowne High School. (7028)	FY'77 - 25 FY'78-FY'80 - 40
		13.3 Recruitment of additional business firms will be undertaken to support activities of FBLA (Future Business Leaders of America) and DECA (District Education Clubs of America). (7056)	Future Business Leaders of America FY'77 - 405 students FY'78-FY'80 - 500 students DECA FY'77 - 2,000 students, 20 high schools FY'78 - 2200 students in 20 high schools

Population Served: Multi

Guidance

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
1. Provide diversified guidance support mechanisms at all levels to encourage maximum achievement and self-realization and to insure informed decision-making at all transition stages.	1. Arrange workshops and conferences for Supervisors and Guidance Counselors on a borough-wide basis with participation of speakers from all school levels, including City University.	1. Coordinator of Occupational Guidance will initiate workshops and maintain liaison with Community District Supervisors of Guidance, H.S. Supervisors and representatives of CUNY Admissions. (7006) 1.1.1 Coordinator will serve as field consultant in program development, in stimulating business/industry contracts. (7006) 1.1.2 Career Guidance Institutes for Junior and Senior High School personnel will provide leadership training. (7006) 1.1.3 A new Counselor Guide to Occupational Education for dissemination to all middle school counselors, will be issued.	Exposure of staff and students to world of work and to realistic employment options, will improve awareness, and provide an informed basis for career development.
	1.2 Provide students with information about course options in the community colleges through first-hand experiences in college career programs, particularly the technologies.	1.2.1 A pilot High School-College Program will be continued, involving Charles E. Hughes, F.D. Roosevelt and Walton High Schools, selected Junior High Schools and N.Y.C. Community College and Bronx Community College (7008) (See also articulation programs)	

Population Served: Multi (Disadvantaged) Guidance Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
		1.2.2 Students will receive assistance in appraising their interests, counselors will upgrade their information re: job market prospects and college offerings. Six counselors and three paraprofessionals will operate under a counselor-coordinator. (7008)	
	1.3 Provide support services to reduce effects of racial isolation in compliance with Franklin K. Lane High School court order. Transfer experiences to two regional Bronx high schools.	1.3 Students in 9th and 10th grades at F.K. Lane High School, reassigned by court order to other High Schools, will receive guidance via classroom visits, large group guidance meetings at each High School (13 receiving). Rezoned Bronx High Schools (2) will be affected.	
		1.3.1 Infusion of world of work into curriculum, career trips, business/industry involvement, and development of peer leaders, will be pursued. (ESAA).	

Population Served: Multi (Disadvantaged)

Guidance

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
2. Insure individualized services to meet needs of youth and adults requiring educational, occupational, personal guidance, testing, referral and placement services, including maintenance of resource centers, and dissemination of information.	2. Provide students and out-of-school persons with a full-range of counseling testing and referral services on a walk-in basis, in a non-school facility in the South Bronx.	2.1 Bronx Career Counseling Center Model will continue its activities in the Bronx High Schools, its linkages with business organziations, its offerings to walk-in clients, including bilingual testing, referral and placement. (7058) 2.2 Two Evening Guidance Centers at Washington Irving High School (Manhattan) and William E. Bryant High School (Queens), will provide youth and adults (172) with educational and occupational guidance, referral to schools and programs, preparation for GED, etc.	

Population Served: Multi (Disadvantaged) Guidance Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
		2.3 Maintain Central Headquarters Resource Center and conduct special programs including Career Guidance Week, multi-media festival, exhibits. (7006)	
		2.4 Develop resource centers in local districts and schools to support career education activities in the Districts. (7045)	
	3. Conduct surveys and studies to improve knowledges regarding high school selection and program choice of graduating intermediate students.	3. Research undertaken in Junior H.S.'s and Intermediate Schools related to student career decision-making will be completed, and the learnings incorporated into recommendations (CATCH - 7051)	15,600 I.S./J.H.S., and Secondary Students

Population Served: Multi

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
4. Provide programs, workshops, incentives and opportunities to encourage professional growth for staff on all levels.	4. Expand by at least 175 the number of staff persons in the Districts trained in occupational education principles, and capable of infusing career education into classroom activities.	4. Successful SPICE, Tri-District model programs will be extended to six middle and six elementary schools in six new districts. Model staff will be involved in training of new occupational education teams. (7045)	
		4.1 Staff of SCECAMP, ICE, and the Development and Implementation Unit of the Center for Career and Occupational Education, the Curriculum Coordinator, members of the Business Community will participate in Staff Development activities. (7001)	
	4.1.1 Update career knowledge in Health, Home Economics, Trade and Technical Subjects, Business Education, Agriculture, Adult Programs.	4.1.1 Implement plans for Practical Nurse workshop.	
		4.1.2 Home Economics Teachers in eight elementary, and 16 intermediate schools will attend five career education in-service sessions and visit a high school feeder program. (7036)	

Population Served: Multi

Staff Development

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
	4.2 Provide orientation and in-service workshops for teachers to support transition to metric measurements in instructional practices.	4.2 Lesson guides for use in metric measurements will be provided to all Home Economics teachers by February, 1977. 4.2.1 Metric instructional models and teacher workshops will be instituted in the trade skills areas at Automotive, Aviation, Manhattan Vocational and other technical high schools.	Through systematic replacement of equipment and staff training programs, students will acquire facility with metric measurement standards which will enhance their eligibility for employment.
	4.3 Conduct in-service workshops and Develop Resource Center for Health Careers teachers and supervisors.	4.3 With the assistance of Health Care institutions, provide central resource for materials and supportive workshops for training in their use. (7030)	

Population Served: Multi　　Staff Development (Cont'd.)　　Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
	4.4 Provide staff training for administrators, guidance counselors and teachers in intermediate schools and high schools in support of school career guidance programs, and improved articulation.	4.4 A full-day leadership institute will be conducted for school administrators, followed by a six-session institute for guidance counselors.	FY'77 - 150 staff persons FY'78-FY'80 - 1,000 staff persons
		4.4.1 A new handbook on careers will be developed for use by guidance personnel.	Through intensive staff development programs, with incentives where practicable, closer collaboration between the educational community and business and industry will be established. Benefits to students will be transmitted by staff and by direct linkages with the business world.
		4.4.2 Institutes for teachers and counselors will be provided through Model Career Education programs--ICE, SCECAMP, PROM; - staff credit will be offered by collaborating training institutions. (7045)	
	4.5 Sponsor regular District leadership meetings in collaboration with business and industry to maintain educational industry partnerships.	4.5 Business-Industry-Education Coordinator will arrange leadership workshops and meetings in conjunction with major industries to insure staff awareness of current needs. (7001)	
	4.5.1 Through various media, reach out to business, industry and the community, to reinforce industry-education partnership.	4.5.1 Prepare materials for media releases to awaken public and industry interest and participation in career and occupational activities.	

Population Served: Multi Staff Development Level: All levels

Goals	Objectives	Activities	Expected Outcomes
5. Eliminate Barriers to Staff Growth and Advancement based on biases related to sex.	5. Provide incentives to professional advancement for qualified staff members, particularly women, who are at present underrepresented in educational leadership positions.	5. Promote support for training women in educational leadership through pilot programs, developed with an accredited graduate institution, and involving present school administrators and community business leaders. (PEOPLE proposal for resubmittal to Women's Equity Education Program, USOE).	Incentives to increase representation of women in educational leadership will encourage upward mobility for greater numbers, and bring parity and equity to staff structure.
5.1 Encourage the participation of students in non-traditional occupations, as a means of eliminating sex as a factor in career selection.	5.1 Develop self-evaluation process to assess progress in eliminating sex stereotypes in ongoing training programs.	5.1 Program outcomes in all of the occupational disciplines will be evaluated based on six objectives; objectives will aim at reducing sex barriers to career training.	
	5.1.1 Increase the number of female participants in trade and technical occupations, and males in non-traditional courses.	5.1.1 Recruitment in the Shared Instruction Program in the After School Occupational Skills program will encourage participation in non-traditional training programs.	

Population Served: Multi (Disadvantaged) **Bilingual** **Level: All Levels**

Goals	Objectives	Activities	Expected Outcomes
6. Remove impediments to training for employment by initiating and implementing bilingual skills training wherever required and appropriate.	6. Introduce bilingual Spanish programs for business students, both as a remedial tool, and as an employment incentive.	6. Spanish Bookkeeping, and Secretarial programs will be expanded to 250 additional students (sales). 6.1 Forty additional students will receive English remediation in a bilingual typing class.	FY'77 - +250 FY'78-FY'80 -500
	6.1 Continue Spanish and French bilingual skills training in Shared Instruction and After School Programs, and in Vocational High Schools	6.1.1 Courses in automotive mechanics in French and Spanish will be offered at Automotive High School.	
		6.1.2 Bilingual shop programs will be developed at George Westinghouse and East New York Voc. H.S. (7077)	Impediments to training for English language limited students will be lessened by the judicious use of bilingual occupational instruction.
		6.1.3 Implement use of Bilingual City-wide Health Careers Guide (Spanish).	
	6.2 Research the feasibility of system-wide bilingual occupational training programs.	6.2 Design research activities to investigate processes, activities and evaluation strategies for bilingual skills training programs on a city-wide scale. (Part C proposal for resubmittal to U.S.O.E.)	

Population Served: Multi (Disadvantaged) Bilingual Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
7. Provide curriculum coordination and development to encourage multi-level skills development in appropriate trade areas to insure smooth exit, entry, and reentry into industry and training.	7. Through central curriculum coordination and resource facilities, extend the benefits of curriculum innovation to all occupational training facilities.	7. Curriculum coordinator will serve as central repository and resource for dissemination of modernized and updated curriculum methods and materials(7020)	Multiple entry and exit points are made possible through the restructuring of curriculum into discrete units. Individualization of instructional modes encourages each student to achieve maximally, and enter the labor market at a point where measurable competence is achieved.
		7.1 Curriculum innovation in unit skills modules will be extended, based upon cooperation of industry, commissions, special studies, and schools. (7034)	
	7.1 Structure studies to develop information relative to employment outlook and to identify trades amenable to unit skills modules.		
		7.1.1 Implement curriculum modification, based upon outcomes of study of business machine repair industry.	
8. Develop resources to determine processes and develop programs in response to unmet occupational training needs for diverse student populations.	8. Complete final phase of Research project, to develop a model for a Skills Center. 8.1 Conduct investigations to determine optimum processes for developing occupational bilingual programs and for mainstreaming handicapped students into occupational programs.	8. Final project report, detailing processes and products related to a Comprehensive Occupational Education Research project will be submitted to the USOE. (6/1977) (Part C-COER Project)	

Population Served: Multi

Articulation

Level: All levels

Goals	Objectives	Activities	Expected Outcomes
9.1 Insure a continuum of educational services, built upon joint staff understandings, which encourage barrier-free advancement to students based upon mastery at each level, and reflecting a developmental sequence of career education learnings.	9.1 Provide mechanisms for guidance staffs to develop awareness of options available to students at transition stages from intermediate to secondary, secondary to post-secondary and to entry-level employment at an appropriate entry stage.	9.1 Articulation workshops will be conducted on borough-wide bases for guidance supervisors and counselors. 9.1.1 Admissions officers from CUNY and other post-secondary institutions will partidipate. 9.1.2 Special guidance classes for 11th and 12th grades in three pilot high schools will promote decision-making skills and provide direction for advancement in technology programs in colleges and in industry.	Students will be encouraged to advance with minimal barriers and duplication, and with more acute awareness of opportunities.
	9.2 Through model programs, built on a concept of life-long educational growth, develop articulated activities involving cooperative efforts of all educational levels and the business community.	9.2 Second year phase of SCECAMP will extend the staff-development and student activities related to the total career education developmental sequence. (Part D-USOE) 9.2.1 Develop a Master-Plan for city-wide implementation of articulated career education activities, with time schedule, and evaluation procedures (PISCES) (See also Career Education).	National model with capability of replication throughout the country will be developed at the completion of the three-year developmental period.

Population Served: Multi

Articulation

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
10. Promote articulated movement in the disciplines through joint programs developed between the secondary schools and post-secondary institutions.	10. Advance the development of five-year programs in the technologies through a pilot secondary, post-secondary joint effort.	10. The development of a five year technologies curriculum for students at Westinghouse and William E. Grady Vocational and Technical High Schools with New York City Community College will be continued, (7081)	Criteria and standards for transition to post-secondary training in the technologies will be available to all secondary technical students, completing vocational high school programs.
	10.1 Promote uninterrupted Cooperative Education employment for graduates applying to the City University.	10.1 Through arrangement with the CUNY Admissions office, COOP graduates will receive preferential placement in a Communtiy College with a COOP program.	
	10.2 Promote career ladder aspirations of students through direct communications between Health Unit, Home Economics, and Business and Distributive Education Bureaus.	10.2 Health Careers unit linkages will be expanded through intervisitations with community colleges (Hostos, Bronx, LaGuardia, NYCC and SICC), with Lehman and Hunter Senior Colleges.	
		10.2.1 A plan for vertical articulation in each of the Home Economics specialty areas is being developed with the City University.	

Population Served: Multi　　　Articulation　　　Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
		10.2.2 With the use of new modules, an articulated K-12 occupational Home Economics program will be implemented in four Districts, involving four High Schools. 10.2.3 Data processing and marketing articulation programs will be expanded to three additional high schools with Borough of Manhattan Community College. 10.2.4 A new articulated Bookkeeping program will be established in two high schools and Queensboro Community College.	A sequential continuum of career offerings, including Home Economics occupational opportunities, and business programs articulated between secondary and post-secondary facilities, will provide smoother and more cost-effective training to NYC students.
	10.3 Promote development of an articulated secondary, post-secondary continuum in agriculture and related disciplines.	10.3 Arrangements with a selected New York City post-secondary department chairman are being made to design a joint curriculum.	
11. Develop resources in the business community through articulation which benefits the educational system and the employer-community.	11. Promote increased awareness of economics among educators and increased participation of employers in school activities.	11. Develop graduate course in economics for educators sponsored by Pace University and Continental Can Company.	

Population Served: Multi

Articulation

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
		11.1 Involve large corporations in school programs (Classroom Connections) including NAB, Con Edison, New York Life Insurance Company and Chase Manhattan.	Activities to reach increased staff, and to involve greater numbers of businesses in community school programs, will enrich career education efforts.
		11.1.1 Publish newsletters, and flyers disseminating career information to parents, and the employer community (7001)	
		11.1.2 Conduct four conferences for career education personnel from each of the 32 Districts. (7001)	
		11.1.3 Develop corporate structure for support of SCECAMP (Part D, VEA)	
		11.1.4 Maintain ongoing liaison with Advisory Council and Advisory Commissions for purpose of coordinated research and curriculum development activities. (7001)	
		11.1.5 Conduct special studies involving separate Advisory Commissions (Advisory Council and 7001).	

Population Served: Multi

Articulation

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
12. Promote advanced level training opportunities to students, as a means of expanding career aspirations.	12. Identify students with potential for advanced career training in Technical Studies.	12. Disadvantaged students from six vocational high schools will be selected, based upon interest and potential for post-secondary technical studies at the University of Massachusetts. (7064)	1976-1977 150 students currently enrolled. It is anticipated that by 1978-80 approximately 125 will qualify for and advance to post-secondary institutions.

Population Served: Multi

Level: All

Goals	Objectives	Activities	Expected Outcomes
13. Provide leadership in the planning, development, implementation, monitoring and evaluation of a comprehensive career/occupational education delivery system in New York City.	13.1 Complete Annual and Long Range Plans, disclosing goals, objectives, activities, benefits to meet the full range and scope of career/occupational training needs in New York City.	13.1.1 Develop needs background and strategies including support services, to provide a plan, consistent with individual aspirations and the present and projected labor market need of New York City. (7001)	A Management System to provide leadership and coordination of regional occupational education services will improve the delivery system affecting the diverse target populations, these including, school age children requiring career orientation and try-out, secondary students requiring occupational training, out-of-school youth requiring guidance, referral training or retraining and the handicapped, of all levels and ages.
	13.2 Incorporate a Post-Secondary Plan, interfaced with the Regional Plan, developed under the direction of a CUNY liaison person.	13.2 A liaison planner, selected jointly by the Regional planning unit, and the CUNY Office of Academic Affairs, will develop a cohesive occupational Plan for the Community College and FIT (7066) 13.2.1 Work with appropriate Divisions of the Board of Education, Advisory Boards, public agencies to develop plans and programs serving special populations and groups. (7001) 13.2.2 Continue liaison activities with the Business Community and with the leadership corps in the 32 Community School Districts. (7001)	

Population Served: Multi

Level: All

Goals	Objectives	Activities	Expected Outcomes
		13.2.3 Provide direction and assistance to Divisions and to schools in designing and modernizing programs.(700) 13.2.4 Coordinate the activities of all components of the delivery system to insure efficiency and cost-effectiveness of service.(7001)	

Population Served-Multi

Level: All Levels

Goals	Objectives	Activities	Expected Outcomes
13. Provide leadership in the planning, development, implementation and evaluation of a comprehensive occupational education delivery system in New York City.	13.3 Improve evaluation and monitoring procedures to assure credible assessment of program performance.	13.3.1 Construct and implement ongoing monitoring, and evaluation procedures, including a summative evaluation report, to measure performance and insure accountability.(7001) 13.3.2 Provide assistance to programs in developing evaluation procedures.(7001) 13.3.3 Maintain ongoing fiscal control and personnel management for all funded programs related to career/occupational education.(7001) 13.3.4 Serve as a resource to local agencies and districts in designing career/occupational proposals.(7001) 13.3.5 Provide coordination of special discipline services including Health, Agriculture and Special Education.	

Population Served: Multi

Level: All

Goals	Objectives	Activities	Expected Outcomes
	13.4 Develop funding resources to generate support for special programs and research studies to augment present capabilities.	13.4 Design, submit and implement, where approved, proposals to the U.S.O.E. to develop: a) A Master Plan for a career education model, in New York City.(7001) b) A design for a career education continuum involving selected occupational clusters. (SCECAMP).(Part D, VEA) c) A Research project relative to bilingual-occupational education and mainstreaming for the handicapped. d) A proposal to support the development of leadership among women educators. e) Brooklyn Intensive Career Education Proposal (BICEP). f) A proposal to research in depth the scope, causes and strategies to reduce school dropouts.	

Population Served: Regular & Disadvantaged

Level: Out-of-School Youth & Adult

Goals	Objectives	Activities	Expected Outcomes
1. Provide comprehensive, coordinated and cost-effective services, including support programs to meet the range of training needs of out-of-school youth and adults.	1. Coordinate and monitor the planning, and implementation processes of programs providing related basic education, and skills training, including apprenticeship programs, State-funded reimbursable programs.	1. Adult Coordinating Unit will serve as clearinghouse and monitoring agent for instructional and management processes of all adult service units. (7071)	
		.1 Adult Coordinating Unit will provide fiscal and personnel supervision for all adult programs. (7071)	
		.1.1. Assistance to the Division of High Schools and to the Divison of Educational Planning and Support will be provided to oversee site selection procedures, consolidation of programs efforts, and other activities resulting from major operational changes. (7071)	A central management resource, responsible for planning, monitoring, evaluating and coordination of all adult units, will insure a comprehensive delivery system, and cost-effective operation.
		.1.2. Joint staff and curriculum development activities will be coordinated for occupational, basic education and High School Equivalency programs. (7071)	

Population Served: Disadvantaged

Level: Out-of-School Youth & Adult

Goals	Objectives	Activities	Expected Outcomes
	1.2 Eliminate obstacles to training and employment, resulting from English language deficiences and from sex discrimination.	1.2 Programs to provide bilingual skills training will be implemented. 1.2.1 Recruitment efforts to encourage training selection on bias-free basis, will be stepped-up.	
	1.3 Provide a range of occupational skills programs to train retrain, and upgrade employability of disadvantaged adults	1.3 Through the use of existing training facilities, and on-site instruction, prepare unemployed adults for entry into employment in the trades, in emerging technologies, and in business and clerical areas (7072)	Unemployed adults will be prepared for job entry in growth industries and as replacements for openings due to death, and retirements through intensive modularized skills programs. Referral for supportive basic skills upgrading will be made to existing agencies providing these services.
	1.4 Train adults in short-term intensive cycles, designed with cooperation of industry and trade unions, for placement to fill present job openings.	1.4 Design short training cycles in metals, garment trades, construction, and other skills areas, with assurance of immediate placement upon completion of training (START-UP) (7075)	Pre-arranged placement will insure employment of participants completing short-term training cycles.
	1.5 Insure modern equipment in facilities where disadvantaged adults receive training for employment.	1.5 Through renewal of shop equipment in vocational high school facilities used by disadvantaged adults, employability will be enhanced. (7080)	

Population Served: Disadvantaged

Level: Out-of-School Youth & Adult

Goals	Objectives	Activities	Expected Outcomes
2. Provide training for adults in skills areas to fill replacement job openings (through death and retirement), and in emerging skills.	2. Provide a range of skills offerings, including business, health, and trade and technical occupations for unemployed and underemployed adults.	2. Continue programs and expand opportunity for training in secretarial and office practice, health and trade and technical occupations (7072) 2.1 Using MDT Skills Centers, contract with public agencies to provide training and placement services(CETA funding-NYC D.O.E.) 2.1.1 Meet the job needs of industry for secretarial and clerical employees by implementing flexible training schedules including Saturday classes and serving disadvantaged adults. (7073) 2.1.2 Extend opportunity for remedial basic education services in agencies funded for this purpose ((WEP, Title VI). 2.1.3 Develop where possible, jointly sponsored training programs, with industry to serve existing agencies, with business (IBM-Wildcat, Board of Education)(7001, 7005)- also START-UP. 2.1.4 Assure full complement of support services, including related instruction for apprenticeship candidates (7069)	

Population Served: Disadvantaged

Level: Out-of-School Youth and Adult

Goals	Objectives	Activities	Expected Outcomes
	2.2 Meet the needs for training in emerging industries.	2.2 Through studies of competencies needed for entry-level employment, and in cooperation with industry advisors, introduce and modify training programs (7059)	
	2.3 Improve systems for placement of completing trainees and for follow-up.	2.3 Coordinate present job development, placement, and follow-up services on an inter-agency basis.	
	2.4 Provide training in alternate facilities where referral to public agencies is not available or not economic.	2.4 Contracts with bona fide private training agencies for training in skills not available in the public sector, or where schedules are inappropriate, will be provided to participants in the Auxiliary Services Program. (7010)	The New York City Demonstration Project will provide experiences and strategies for coordinating training services, linking the private sector with the public for maximum benefit to trainees
3. Provide a range of coordinated consumer education skills training opportunities designed to improve the quality of life of disadvantaged adults.	3. Coordinate present and design new consumerism activities.	3. A Consumer Education Coordinating Unit will provide continuity, articulation and currency of programs. (7063)	
	3.1 A variety of consumer education services will be provided in localities densely populated by disadvantaged persons.	3.1 Home Management, Nutrition, Clothing Management, and related consumer learnings will be offered in 8 ACE centers and through a Neighborhood Outreach Program (7065, 7078)	

Population Served: Handicapped

Level: Youth & Adult

Goals	Objectives	Activities	Expected Outcomes
1. Provide awareness, exploration, and try-out experiences to all handicapped students, in special or mainstream programs, and consistent with individual capability.	1. Provide try-out training to physically handicapped students, including placement in full or part-time employment.	1. Physically handicapped and Brain-injured students will receive try-out experiences at Tilden and Stevenson High Schools (7048)	
	1.1 Involve handicapped students in career development activities, consistent with student capabilities.	1.1 Involve students in pre-vocational exposure through General Industries Labs. (Tax-Levy)	
	1.2 Extend participation of handicapped students in existing regular programs, including Shared Instruction, After School Occupational Skills, and Work-Study.	1.2 Provide 9th year exploratory experience in a Vocational High School to determine student interest in occupational skills areas, for Hearing and Language Impaired. Encourage participation in After School programs. (7014) 1.2.1 Provide range of career education services to visually impaired at all levels. (Tax-Levy)	

Population Served: Handicapped (cont'd) Level: Youth and Adult

Goals	Objectives	Activities	Expected Outcomes
		1.2.2 Provide City-Wide Mainstream opportunities in 7 High Schools. (7014)	FY'77 - 600 Secondary Students will receive training FY'78-'80 - 800 students
		1.2.3 Involve handicapped students in building program through Shared Instruction (Thomas Edison High School). (7017, 7047, 7048)	FY'77 - 10 FY'78-80 - 25
	1.3 Develop integrated mainstream programs for handicapped secondary students.	1.3 Support continuation of full-time vocational programs for 250 handicapped students, and part-time programs for 300. (7014)	FY'77 - 250 f/t 300 p/t FY'78-80 - 300 f/t 500 p/t
		1.3.1 Develop new full-time programs for 300 students, with assistance of Advisory Commission, DSEPPS, and school administrators (7048 7011, 7014)	100
	1.4 Provide support services to insure placement for handicapped secondary students.	1.4 Employ a job developer to explore employment opportunities and to assist Special Education teachers in preparing students for employment. (COOP Educ.) (7048)	300
		1.4.1 Provide driver education for severely handicapped students, as an aid to employment. (7014)	50

Population Served: Handicapped (cont'd) **Level:** Youth and Adult

Goals	Objectives	Activities	Expected Outcomes
	1.5 Develop employment skills in Health Occupations, Building Maintenance, Horticulture and Ground Maintenance, Audio-Visual Equipment, Business Machines and Office Skills.	1.5 Provide training and related services to 600 Brain-injured and Physically Handicapped in:(7012, 7014, 7017, 7050) Health Occupations -(7012) Kennedy and Francis Lewis High Schools Building Maintenance - Edison and Queens Vocational High Schools (7017, 7047, 7048) Business Machines and Office Skills - Flushing, Hillcrest, Stevenson, Madison High Schools, Newtown, G.Washington, John Jay (7050)	
	1.6 Provide coordination, planning and articulation of all occupational services to the Handicapped population.	1.6 A coordinating staff will assist all Bureaus and agencies under DSEPPS in the planning, development and implementation of occupational education services. (7011) and tax-levy (7014)	

Population Served: Handicapped

Level: Youth and Adult

Goals	Objectives	Activities	Expected Outcomes
	1.7 Develop Model programs in career/occupational education for handicapped youth.	1.7 A new program in career exploration, and skills try-out will be implemented at the Bronx Rehabilitation Center for mentally handicapped youth. (7016)	FY'77 - 45
		1.7.1 Health Occupations Training for Brain-injured and Physically Handicapped will be continued at Francis Lewis H.S. (7012)	FY'77 - 75 FY'78-80 - 100
	1.8 Extend work/experience opportunity to handicapped secondary students.	1.8 On-the-Job experiences will be extended to secondary students to improve their employability. (7048)	FY'77 - 300 FY'78-80 - 400
	1.9 Provide placement referral and training services on a city-wide basis, with follow-up.	1.9 Counseling intake, placement referral, and follow-up will be instituted for adults. (7015)	FY'77 - 200 FY'78-80 - 300
		1.9.1 Training for adult retardates in selected areas will be continued in the Evening Trade Schools. (7053)	
		1.9.2 Severely hearing handicapped and Language impaired adults will be evaluated for job placement. (7013)	

Population Served: Handicapped Level: Youth and Adult

Goals	Objectives	Activities	Expected Outcomes
2.1 Provide appropriate skills training and employment readiness, consistent with individual student potential and with the handicapping condition.	2.1 Through try-out experiences determine training potential and implement assignment of students to training in clerical skills, agriculture, cosmetology, food and other skills areas.	2.1 Training in preparation for entry-level employment will be continued at the Lt. Joseph P. Kennedy Home for Institutionalized Adolescents. (7049)	FY'77 - 140 FY'78-80 - 150
		2.1.1 Clerical skills for educable Mental Retardates will be available in 4 boroughs (7050)	FY'77 - 180 George Washington (M) John Jay (K) Adlai Stevenson (X) Newtown (Q)
		2.1.2 Food Preparation Skills training will be continued for institutionalized adolescents (emotionally disturbed). (7052)	FY'77 - 50 P.S. 106-M Bellevue Psychiatric Hospital
	2.2 Specialized and highly individualized training will be offered to severely disabled secondary students.	2.2 Multiply-Handicapped Students at the Queens and Manhattan centers for Multiply Handicapped Students will receive full range of try-out and training opportunities, including referral to other facilities, where appropriate. (7054)	80 CMHC (Manh.) CMHC (Queens)
	2.2.1 Provide individualized training services to multiple handicapped students.	2.2.1 The ten classroom teachers and paraprofessionals at the Manhattan and Queens Centers will develop individualized exploratory and occupational skills activities. (7054)	

Population Served: Handicapped

Level: Youth & Adult Benefits

Goals	Objectives	Activities	Expected Outcomes
	2.3 Strengthen and improve pre-vocational education in the Junior High School CRMD program.	2.3 Involve students in Work-Experience program with stipends to cover on-the-job training in public service employment, and in competitive employment. (T-L)	
	2.4 Provide clerical skills training for CRMD High School Work-Study students.	2.4 Clerical skills modules will be developed, to augment clerical skills unit developed at Andrew Jackson at Wingate, Harris and Charles E. Hughes High Schools. Two additional units will be developed (T-L and [illegible])	Plan to be completed FY'77
3. Coordinate the development of innovative skills training programs, through planning involving all Bureaus and agencies serving the handicapped.	3. Initiate VEA programs to serve the handicapped on all levels, and within a total planning framework.	3. A plan for all DREPPS services will be developed, integrating all funding sources into a total training effort. (3011)	

Population Served: Handicapped (Cont'd.) Level: Youth & Adult

Goals	Objectives	Activities	Expected Outcomes
	3.2 Evaluate for referral, placement, and follow-up out-of-school handicapped students.	3.2 Placement and referral Center will provide job development, placement, referral and counseling services to graduate and out-of-school handicapped persons. (7015) 3.2.1 Special job preparatory skills development, placement, and follow-up services will be provided for severely Hearing and Language Impaired adults. (7013)	

SECTION 6

OCCUPATIONAL EDUCATION AT THE SECONDARY LEVEL

OCCUPATIONAL EDUCATION AT THE SECONDARY LEVEL

This section includes a Table VI which details the full range of Occupational Education programs on the secondary level. The allocation of facilities, the enrollments, instructional costs, (tax levy and associated reimbursable funded programs) are presented for October 1975. Instructional costs are limited to direct teacher and supervisor salaries related to the programs. The "unit" employed for this computation was that of an "equivalent" teacher, one teaching five periods per day, five days per week. Annual average salaries have been computed on the basis of $19,400 per annum for teachers, $25,400 for supervisors.

As outlined in Table VI, the total course enrollments for all regular programs was 282,680. Included in this figure were 1,362 Agricultural; 154,322 Business and Distributive Education; 16,068 Health Careers; 17,858 Home Economics; 33,889 Industrial Arts; 47,025 Trade/Industry; and 12,138 Technical High Schools.

A minor decrease in enrollments in the Academic and Comprehensive High Schools from 1974 to 1975 was offset by the almost 3,000 increase in enrollments for the Vocational High Schools.

The Academic and Comprehensive High Schools continue to be a vital resource, with significant potential for the expansion of occupational training to meet the needs of students who are not being served. The expansion of activities in these schools to serve greater numbers of students are a priority emphasized in the section of this Plan under Goals, Objectives, and Activities.

By design and intent, programs such as Shared Instructional Services and After School Occupational Skills Training,* have the capability of narrowing the gap between "seats" available in present facilities and the numbers of students applying for them. Moreover, both programs are a vehicle for meeting the mandate for dual enrollment under provision of Chapter 593 of the State laws of 1974.

This section also provides a detailed chart covering the range of occupations and the numbers involved, in Cooperative Education.** A number of other alternative occupational programs funded under VEA are not represented in the charts. These programs include: Child Care Training at High School Redirection, 40 enrollees, $30,000 for direct instructional costs; City-as-School, 265 enrollees, $19,400; Human Services Internships, 200 enrollees, $93,000; Lower East Side Prep, 400 enrolles, $38,000; and Work Experience Job Development Center at Martin Luther King, Jr. High School, 50 enrollees, $30,000. The Satellite Academies which are funded primarily through Tax Levy monies, provide services to 150 students in Health programs and 520 students in Business careers. Costs for 1 1/3 teachers are allocated through VEA funds to Health Careers and four full-time teachers to the Business Careers programs. These Satellite enrollments and direct teacher/supervisor costs are included in the Business and Distributive Education and the Health Careers sections of Table VI.

For purposes of establishing a basis for claims for reimbursement to the State Education Department, under the Additional Apportionment Aid Act. Table E details the appropriate program areas for these funds, and the corresponding cost data

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* See Table VII

** See Table VIII

Total secondary enrollments aggregated 282,680 in day high schools, and 15,902 in alternate programs. The estimated number of individual students involved in occupational education is, of course, lower since in many cases students are concurrently enrolled in more than one course.

TABLE VI

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

						Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
	Secondary Schools			Enrollments		Tax Levy *				
Occupational Cluster	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
AGRICULTURAL PROGRAMS										
Farm Production and Management	Q	J. Bowne	A	255		61.8				
Ornamental Horticulture	X	H. S. of Science	T							
	X	P.S. 186 Hillside (Spec. Ed.)	O							
	X	P.S. 186 Lt. J.P. Kennedy (Spec. Ed.)	O							
	K	Boys	A	585		163.7				49
	K	E. R. Murrow	C							
	K	T. Jefferson	A							
	M	B. Franklin	A							
	Q	J. Bowne	A							
	Q	M. Van Buren	A							
	R	P.S. 25 (Spec. Ed.)	O							
	R	S. E. Wagner	C							
Animal Care	X	D. W. Clinton	A							
	K	A. Lincoln	A	369		45.2				40
	Q	J. Bowne	A		15		--	4.1		
	R	Tottenville	C							
Conservation	Q	M. Van Buren	A	64		24.5				25
Oceanography	Q	Beach Channel	C	89		14.2				
Funding Applicable to all Agricultural Programs								226.9(1)		
Sub-Totals: Agricultural Programs				1,362	15	309.4		231.0(1)		114

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* Teacher and Supervisor Costs Only, in Thousands of Dollars.

(1) Includes three VEA funded teaching positions ($58,200).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
BUSINESS AND DISTRIBUTIVE EDUCATION PROGRAMS										
Exploratory Programs		81 Ac., Comp, & Voc. H.S.s		5,242		697.7				
Accounting/Bookkeeping		72 Ac. & Comp. H.S.s		58,319		7,748.9				
		9 Voc. H.S.s		4,885		647.6				
Clerical/Office Practice		72 Ac. & Comp. H.S.s		48,054		6,404.6				
		9 Voc. H.S.s		8,739		1,141.8				
Secretarial/Stenographic		58 Ac. & Comp. H.S.s		14,932	76	1,932.8	11.7	1.3		
		8 Voc. H.S.s		4,496		611.3				
Distributive Education		67 Ac. & Comp. H.S.s		4,685	58	631.4	7.4	1.2		
		7 Voc. H.S.s		1,966		261.8				
Computer Data Processing		28 Ac. & Comp. H.S.s		2,624		341.8				
		2 Voc. H.S.s		380	133	38.8	23.4	2.7		
Funding Applicable to all Business Programs								532.1 (1)		
Sub-Totals: Business Programs				154,322	267	20,458.5	42.5	537.3 (1)		

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.
(1) Includes three VEA funded teaching positions ($58,200).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy **				
Occupational Cluster	Boro	Name	Type	Regular*	SIP	Regular	SIP	VEA	Other	
HEALTH CAREERS PROGRAMS										
Exploratory		2 Comp. & Voc. H.S.s		2,540		333.0				
Dental Health Assisting	M	M.D. Bacon	V	667		244.2		15.7		59
	Q	Hillcrest	C							
	M	J.F. Kennedy	C							
	R	Tottenville	C							
	X	N.C. Sat. Academy	O							
	K	Clara Barton	C							
Medical Secretarial	Q	Hillcrest H.S.	C	65		7.8				
	K	Eli Whitney	V							
Health Technologies: Bio-Med. Medical Lab, Pre-Med, Biological Science	K	Boys H.S.	A	2,498		369.8		73.0		104
	K	New Utrecht	A							
	K	S. Tilden	A							
	K	F.K. Lane	A							
	K	F.D. Roosevelt	A							
	K	Bushwick	A							
	K	Sheepshead Bay	A							
	K	Ft. Hamilton	A							
	Q	A. Martin	C							
	K	C. Barton	C							
	Q	Forest Hills	A							
	X	T. Roosevelt	A							
	Q	Far Rockaway	A							
	Q	W.C. Bryant	A							
	Q	F.K. Lewis	A							
	K	Eastern District	A							
	K	South Shore	C							
	K	Midwood	A							
	K	Lafayette	A							
	R	Port Richmond	A							
	R	Susan Wagner	C							
(Cont'd)	M	L.D. Brandeis	A							

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M Tax Levy *				Proposed Additional Apportionment Costs (in Tax Levy)
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
HEALTH CAREERS PROGRAMS (CONTINUED)										
Health Technologies (Cont'd)										
	Q	Springfield Gdns	A							
	Q	Bayside	A							
	Q	J. Adams	A							
	Q	Jamaica	A							
	Q	A. Jackson	A							
	X	Walton	A							
	X	W.H. Taft	A							
Introduction to Health Careers	M	B. Franklin	A							
	M	C.E. Hughes	C							
	M	J. Richmond	A							
	X	D.W. Clinton	A							
	M	Park East	O							
	M	S. Park	A							
	M	L.D. Brandeis	V	5,813		864.3				
	M	W. Irving	A							
	X	C. Columbus	A							
	X	E. Childs	A							
	X	H.H. Lehman H.S.	C							
	X	James Monroe	A							
	M	J. F. Kennedy	C							
	X	Morris H. S.	A							
	X	A. Stevenson	C							
	X	T. Roosevelt	A							
	X	Walton H.S.	A							
	X	W. H. Taft	A							
	M	M.L. King	C							
	K	Canarsie	A							
	K	F.K. Lane	A							
	K	F.D. Roosevelt	A							
	K	South Shore	C							
	K	Lincoln	A							
	K	T. Jefferson	A							
	K	Bay Ridge	A							
(Cont'd)	K	Bushwick	A							

* Teacher and Supervisor Costs Only, in Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
HEALTH CAREERS PROGRAMS (CONTINUED)										
Introduction to Health Careers (Cont'd)	Q	Newtown	A							
	X	H.C. Sat. Academy	O							
	K	Fort Hamilton	A							
	K	G. Wingate	A							
	K	J. Dewey	A							
	K	Lafayette	A							
	R	Curtis	A							
	X	H.C. Satellite Acad.	O							
	K	Erasmus	A							
	K	Eastern District	A							
	K	New Utrect	A							
	Q	Andrew Jackson	A							
	Q	Bayside	A							
	Q	Forest Hills	A							
	Q	L.I. City	A							
	R	Tottenville	C							
	M	M.D. Bacon	V							
	X	Jane Addams	V							
	X	Dodge Voc.	V							
	Q	Queens Voc.	V							
	K	Eli Whitney	V							
	Q	Benjamin Cardozo	A							
	Q	Jamaica	A							
	Q	J. Bowne	A							
	Q	Martin Van Buren	A							
	Q	Sprngfd Gdns	A							
	Q	F. Lewis	A							
	Q	Beach Channel	C							
	Q	August Martin	C							
Health Assistants: Nurse Aides. Aux. Hlth. Assist., Med. Off. Assistants	X	Morris	A							
	M	W. Irving	A	1,007		318.2				103
	X	James Monroe	A							
	M	J. Richman	A							

(Cont'd.)

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* Teacher and Supervisor Costs Only, in Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs
						Tax Levy *				
Occupational Cluster	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	(In Tax Levy)
HEALTH CAREERS PROGRAMS (CONTINUED)										
Health Asst. (Cont.)	K	Sarah Hale	C							
	Q	Hillcrest	C							
	Q	Queens	V							
	K	Clara Barton	C							
	K	Eli Whitney	V							
	X	Jane Addams	V							
	X	Dodge	V							
Practical Nursing	R	Curtis	A	3,022		792.6		32.7(1)		434
	Q	Hillcrest	C							
	M	J. Richman	A							
	X	Morris	A							
	M	Washington Irving	A							
	K	Barton	C							
	X	Dodge	V							
	K	E. Whitney	V							
	X	J. Addams	V							
	M	M.D. Bacon	V							
Health Services	X	De Witt Clinton	A	142		38.8		111.9(2)		
	K	Bay Ridge	A							
	X	Evander Childs	A							
	Q	Jamaica	A							
	Q	M. Van Buren	A							
	M	Seward Park	A							
	X	William Taft	A							

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* Teacher and Supervisor Costs Only, in Thousands of Dollars.

(1) Includes one VEA funded teaching position ($19,400). (2) Includes four VEA funded teaching positions ($77,600).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
Occupational Cluster	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
HEALTH CAREERS PROGRAMS (CONTINUED)										
Geriatrics	X	Walton H.S.	A	32		8.0				
SETH (Secondary Education through Health)	M	B. Franklin, & Mt. Sinai Hospital	A	300				29.8(1)		
Funding Applicable to all Health Careers Programs								115.7(2)		
Sub-Totals: Health Careers Programs				16,086		2976.5		378.8(3)		700

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

(1) Includes one VEA funded teaching position ($19,400). (2) Includes one VEA funded teaching position ($19,400) and one VEA funded supervisory position ($25,400). (3) Includes seven VEA funded teaching positions ($135,800) and one VEA funded supervisory position ($25,400).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools Boro	 Name	 Type	Enrollments Regular*	 SIP	Estimated Costs, $M Tax Levy * Regular	 SIP	 VEA	 Other	Proposed Additional Apportionment Costs (in Tax Levy)
HOME ECONOMICS PROGRAMS										
Food Occupations										
A) Menu Planning, Nutrition, Food Preparation	70	Ac., Comp. H.S.s		6,875		1,383.6				
B) Food Services (Disadvantaged Students)	14	Ac., Comp. H.S.s		693		139.5				
Clothing Occupations										
A) Clothing Design, Textiles	65	Ac., Comp. H.S.s		4,500		1,259.6				
B) Clothing Services (Disadvantaged Students)	5	Ac., Comp. H.S.s		151		41.3				
C) Needlework	35	Ac., Comp. H.S.s		1,750		724.7				
Consumer Education	3	Ac., Comp. H.S.s		450		104.6				
Home Occupations										
A) Home Management, Home Furnishings	3	Ac., Comp. H.S.s		75		63.3				
B) Hospitality Services	1	Ac. H.S.		25		15.4				

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs
						Tax Levy *				
Occupational Cluster	Boro	Name	Type	Regular*	SIP	Regular	SIP	VEA	Other	(In Tax Levy)
HOME ECONOMICS PROGRAMS (CONTINUED)										
Child Care Occupations										
A) Child Development, Family Living		30 Ac., Comp. H.S.s		3,200	24	620.1	--	1.8		
B) Child Care Services (Disadvantaged Students)		6 Ac., Comp. H.S.s		290		117.6				
Funding Applicable to Total Home Economics Programs:								107.7(1)		
Sub-Totals: Home Economics Programs				17,858	24	4,489.1		109.3(1)		

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* Teacher and Supervision Costs Only, In Thousands of Dollars.
(1) Includes two VEA funded teaching positions ($38,800).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools Boro	Secondary Schools Name	Secondary Schools Type	Enrollments Regular	Enrollments SIP	Estimated Costs, $M Tax Levy * Regular	Estimated Costs, $M Tax Levy * SIP	Estimated Costs, $M VEA	Estimated Costs, $M Other	Proposed Additional Apportionment Costs (In Tax Levy)
INDUSTRIAL ARTS PROGRAMS										
Electronics-Electricity		17 Ac. & 9 Comp. H.S.s		2,420		813.4				
Graphics Arts		11 Ac. & 9 Comp. H.S.s		1,742		622.6				
Industrial Ceramics		3 Ac. & 1 Tech. H.S.		348		145.7				
Mechanical Drafting		54 Ac., 9 Comp. & 3 Tech.H.S.s		7,798		1169.7				
Metalworking		50 Ac., 9 Comp. & 3 Tech.H.S.s		5,288		1498.0				
Plastics		16 Ac. & 1 Tech. H.S.		1,119		578.5				
Transportation		13 Ac. & 9 Comp. H.S.s		2,400		691.0				
Woodworking		56 Ac., 9 Comp. & 3 Tech.H.S.s		9,800		1,752.3				
Industrial Careers		9 Comp. H.S.s		971		349.6				
Small Engine Repair		7 Ac. H.S.s		893		238.8				
Marine Technology		1 Ac. & 1 Comp. H.S.		310		122.4				
Aerospace		3 Ac., 1 Comp. & 1 Tech. H.S.		600		161.2				
Multi-Media Program		4 Ac. H.S.s		200		82.6				
Funding Applicable to all Industrial Arts Programs								123.8(1)		
Sub-Totals: Industrial Arts Programs				33,889		8,225.8		123.8		

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* Teacher and Supervisor Costs Only, in Thousands of Dollars.

(1) Includes one VEA funded teaching position ($19,400).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS										
Exploratory Programs		19 Voc. High Schools		7,362		1,770.3				
1. Architectural Drafting Program(Technical)	X	A. E. Smith	V	421	3	144.5*				144
	M	Manhattan	V							
	K	A. Hamilton	V							
2. Automotive Trades Program										
A) Automotive Mechanics	R	R. McKee	V	3,263	412	1,386.8	53.1	48.2		1,319
	X	A.E. Smith	V							
	Q	T.A. Edison	V							
	K	W.E. Grady	V							
	K	Automotive	V							
	M	J.F. Kennedy	C							
	R	Tottenville	C							
	M	Haaren	A							
	X	H.S. Truman	C							
B) Automotive Body	X	A.E. Smith	V	388		190.5				190
	K	Automotive	V							
	R	Tottenville	V							
C) Service Station Attendant	K	S. Shore	C	41		15.5				
3. Aviation Trades										
A) Aviation Mechanics, Avionics	K	E. New York	V	3,208	32	1,511.3	15.5	.8		1,488
	Q	Aviation	V							
	Q	A. Martin	C							
B) Ground Support Vehicle Maintneance	Q	A. Martin	C	33		11.6				

* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools Boro	Name	Type	Enrollments Regular	SIP	Estimated Costs, $M Tax Levy * Regular	SIP	VEA	Other	Proposed Additional Apportionment Costs (In Tax Levy)
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
4. Blueprint reading	K X X Q Q R M M K K K	A. Hamilton S. Gompers A.E. Smith T.A. Edison Aviation R. R. McKee Manhattan Chelsea Automotive G. Westinghouse W. E. Grady	V V V V V V V V V V V	2,609		317.8				185
5. Building/Construction Trades										
A) Cabinet Making Program (11th and 12th Year only)	Q R M M K K K	T. A. Edison R. R. McKee Manhattan Chelsea G. Westinghouse E. Whitney W. E. Grady	V V V V V V V	1,368	7	533.0	.3	.1		523
B) Carpentry Program (11th and 12th Year only)	X M M K K	A.E. Smith Manhattan Chelsea A. Hamilton E. New York	V V V V V	1,069	14	377.9	.6	.2		371
C) Plumbing Program	X Q Q R	A. E. Smith Queens T. A. Edison R. R. McKee	V V V V	472	10	218.8	.9	.3		219
D) Woodworking Program, Basic (10th year only)	X X X M K K	A. E. Smith R. R. McKee T. A. Edison Manhattan E. New York South Shore	V V V V V V	817		262.8				260
6. Clock and Watch Mechanics Program	K	G. Westinghouse	V	90		29.7				

* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
7. Commercial Art Program										
A) Art and Illustration	Q M	Bayside Art and Design	A V	2,272	17	464.9	1.0	2.3		
B) Advertising Art	M	Art and Design	V	292		93.0				
C) Cartooning and Animation	M	Art and Design	V	115		43.7				
D) Package Design	M	Art and Design	V	52		15.5				
E) Theater Arts	M	Art and Design	V	27		11.6				
8. Commercial Photography Program										
A) Commercial Photography	M X	Art & Design G. Dodge	V V	382	16	128.8	1.0	2.3		
B) Fashion Photography	M	Fashion	V	64		23.3				23
C) Motion Pictures and Videotape Production	M	Art and Design	V	23		14.1				
D) Silk Screen	M	Art and Design	V	78		23.3				
9. Computer Technology Lab. Program (technical)										
A) Computer Tech. Lab.	K	G. Westinghouse	V	82		47.1				47
10. Cosmetology Trades Program	X Q R X K K K	Dodge Queens R.R. McKee Jane Addams E. Whitney W.J. Maxwell S.J. Hale	V V V V V V V	1,749	153	623.5	58.0	5.1		383
11. Dental Lab Processing Program	K	G. Westinghouse	V	270	23	86.6	--	3.2		

* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools Boro	Secondary Schools Name	Secondary Schools Type	Enrollments Regular	Enrollments SIP	Estimated Costs, $M Tax Levy * Regular	Estimated Costs, $M Tax Levy * SIP	Estimated Costs, $M VEA	Estimated Costs, $M Other	Proposed Additional Apportionment Costs (in Tax Levy)
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
12. Driver Education	X	A.E. Smith	V	1,058		302.7				74
	Q	T.A. Edison	V							
	X	G. Dodge	V							
	M	Foods and Maritime	V							
	K	W.E. Grady	V							
	K	Automotive	V							
	K	South Shore	C							
13. Electro-Mechanical Drafting Program										
A) Electro-Mechanical Drafting	M	Manhattan	V	167	1	57.5				57
	K	G. Westinghouse	V							
B) Mechanical Drafting	M	Manhattan	V	172		40.7				40
	K	A. Hamilton	V							
	K	W.E. Grady	V							
14. Electro-Mechanical Trades										
A) Equipment Repair Program	M	Manhattan	V	182		66.0				46
B) Appliance Repair	K	E. Whitney	V	66		47.7				
C) Business Machine Repair Program	X	S. Gompers	V	336	12	218.9	--	1.3		150
	Q	T.A. Edison	V							
	K	E. Whitney	V							
	K	G. Westinghouse	V							
	K	A. Hamilton	V							

* Teacher and Supervisor Costs Only, in Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools Boro	Secondary Schools Name	Secondary Schools Type	Enrollments Regular	Enrollments SIP	Estimated Costs, $M Tax Levy * Regular	Estimated Costs, $M Tax Levy * SIP	Estimated Costs, $M VEA	Estimated Costs, $M Other	Proposed Additional Apportionment Costs (in Tax Levy)
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
15. Electrical/Electronics Trades										
A) Electrical Installation & Practice Program	X	S. Gompers	V							
	X	Queens	V							
	Q	T. A. Edison	V							
	R	R. R. McKee	V							
	M	Chelsea	V							
	K	E. Whitney	V							
	K	G. Westinghouse	V	3,457	135	1,441.8	51.2	9.9		1,415
	K	A. Hamilton	V							
	K	W. E. Grady	v							
	K	E. New York	V							
	K	S. Shore	C							
	K	C. E. Hughes	C							
B) Radio Electronics Installation Prog.	K	G. Westinghouse	V	338		142.2				142
C) Radio Electronics Mechanics Program	K	W. E. Grady	v							
	M	Chelsea	V	754	47	280.4	18.5	.5		280
	K	E. New York	V							
	k	G. Westinghouse	V							
D) Radio & TV Mechanics Program	X	S. Gompers	V							
	Q	Queens	V							
	K	G. Westinghouse	V	681	6	373.4	--	.4		365
	K	E. Whitney	V							
	Q	A. Martin	X							
E) TV Broadcasting Program	K	G. Westinghouse	V	34	20	36.9	--	1.3		10

* Teacher and Supervisor Costs Only, in Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy **				
	Boro	Name	Type	Regular*	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
16. Environmental Control Program										
A) Automatic Heating Mechanics Programs										
1. Automatic Heating	K	W. E. Grady	V	323		109.9				110
B) Climate Control Program	X	A. E. Smith	V	245		109.9				102
	Q	T. A. Edison	V							
	X	H. Lehman	C							
C) Commercial Domestic Refrigeration Program	M	Manhattan	V	229	52	99.5	1.9	7.6		96
	X	H. Lehman	C							
17. Fashion Trades										
A) Costume Design, Illustrating (Incl. Fashion Illustrating) & Draping Program	M	Fashion	V	952		161.4				94
	M	Art and Design	V							
B) Fashion Design Program (Vocational)	M	Fashion	V	1,232		381.6				381
C) Fashion Design Program (Technical)	M	Fashion		80		23.3				23
D) Fashion Design Merchandising Program	X	Jane Addams	V	624		89.1				86
	M	Fashion	V							
E) Men's Clothing Manufacturing Program	M	Fashion	V	99		34.9				47

* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
Occupational Cluster	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
Fashion Trades (continued)										
F) Women's Apparel Manufacturing Program (Includes Trade Dressmaking)	Q M K K X	Bayside Fashion W. H. Maxwell E. Whitney Jane Addams	A V V V V	409	9	188.5	--	.2		
18. Food Trades										
A) Baking Program	M	Foods & Maritime	V	203	13	73.4	5.6	--		
B) Cafeteria and Catering Program	M	Foods & Maritime	V	314		102.5				
C) Meat Merchandising Program	M	Foods & Maritime	V	84		36.7				
19. Fur Manufacturing Program	M	Fashion	V	90		34.9				35
20. Industrial/Machine Design Program (Technical)										
A) Industrial	M	Art & Design	V	54		19.4				
B) Machine	K Q	A. Hamilton T. A. Edison	V V	161		53.6				
C) Architecture	M	Art & Design	V	53		19.4				
21. Interior Decoration Program	M	Fashion	V	130		58.8				59

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
22. Jewelry Desing and Manufacturing Program	M	Fashion	V	206		70.4				70
	K	G. Westinghouse	V							
23. Machine and Metal Trades										
A) Machine Shop Practice Program	M	Manhattan	V	1,241	3	506.0	--	--		485
	K	G. Westinghouse	V							
	R	R. R. McKee	V							
	Q	Queens	V							
	Q	T. A. Edison	V							
	K	A. Hamilton	V							
	K	W. E. Grady	V							
	K	E. New York	V							
	X	Automotive	V							
	X	A. E. Stevenson	C							
	K	E. Whitney	V							
B) Sheet Metal Work Program	M	Manhattan	V	633	27	264.0	3.9	.5		
	K	A. Hamilton	V							
	Q	Aviation	V							
	R	R.R. McKee	V							
	X	Stevenson	C							
24. Maritime Trades										
A) Marine Occupations Programs	M	Food & Maritime	V	575	1	201.1	--	--		
	M	SS J. Brown II	O							
25. Mechanical/Architectural Drawing Program										
A) Mechanical	Q	T. A. Edison	V	366		48.9				
	Q	Queens	V							
	Q	Aviation	V							
	R	R. R. McKee	V							

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (In Tax Levy)
						Tax Levy **				
	Boro	Name	Type	Regular*	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
Mech./Arch. Draw. Prog. (Continued)										
B) Architectural	R	R.R. McKee	V	41		15.5				
26. Optical Mechanics Program	K	G. Westinghouse	V	147	2	58.8	--	--		
27. Printing Trades Programs										
A) Bookbinding	M	N.Y. Sch. of Printing	V	49		31.5				24
B) Letterpress (Incls. hand typesetting, book and job make-up, machine typesetting)	M	N.Y. Sch. of Printing	V	760		299.3				299
C) Offset (Incls. Photo-copy, camera, printing & presswork)	R M	R.R. McKee N.Y. Sch. of Printing	V V	835	7	343.1				333
D) Graphics Communications	Q	T.A. Edison	V	54		47.8				
E) Journalism	M	N.Y. Sch. of Printing	V	187		62.6				63
F) General Printing	Q K	Queens Hamilton	V V	46		37.3				
28. Sculpture and Stone Carving Program										
A) Modeling and Ceramics	M	Art & Design	V	125		31.0				
B) Sculpture	M	Art & Design	V	29		14.1				

* Teacher and Supervisor Costs Only, In Thousands of Dollars

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (in Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
29. Technical Courses Program										
A) Civil Engineering Design and Construction	M	Manhattan	V	175		49.1				
B) Electricity Tech	X	S. Gompers	V	279		108.6				62
	R	R. R. McKee	V							
	M	C. E. Hughes	C							
C) Electronics Tech	Q	T. A. Edison	V	1,260		317.8				318
	K	G. Westinghouse	V							
	K	W.E. Grady	V							
D) Instrumentation Control System (Automatic Instrumentation)	Q	Queens	V	71		33.5				
E) Strength of Materials	X	A. E. Smith	V	238		34.0				
	M	Manhattan	V							
	Q	T. A. Edison	V							
	R	R. R. McKee	V							
F) Industrial Chemistry	Q	T. A. Edison	V	58		31.0				
30. Textile Design and Weaving Program	M	Fashion	V	274		51.0				44
	K	W. H. Maxwell	V							

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (in Tax Levy)
						Tax Levy *				
Occupational Cluster	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TRADE/TECHNICAL PROGRAMS (CONTINUED)										
31. Upholstery Program	K	E. Whitney	V	70		45.2				
32 Music, Dance	R X	Curtis E. Childs	A A		28		7.4	1.0		
Funding Applicable to all Trade/Technical Programs								1,136.0(1)		
Sub-Totals: Trade/Technical Programs				47,025	1,050	15,653.5	218.9	1,221.2(1)		10,462.0

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* Teacher and Supervisor Costs Only, in Thousands of Dollars.

(1) Includes three VEA funded teaching positions ($58,200).

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Ad[illegible]ional Apportionment Costs (In Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TECHNICAL HIGH SCHOOLS PROGRAMS										
Exploratory Tech	K	Brooklyn Tech	T	566		80.1				
Aeronautical and Structural Shop and Lab	K	Brooklyn Tech	T	410		100.2				
Architectural Drawing	K	Brooklyn Tech	T	102		27.7				
Technical Drawing	K	Brooklyn Tech	T	766		43.2				
Electronic Tech	K	Brooklyn Tech	T	1,808		212.5				
Machine Shop	K	Brooklyn Tech	T	1,072		195.1				
Machine Design	K	Brooklyn Tech	T	39		14.8				
Strength of Material	K	Brooklyn Tech	T	333		49.1				
Surveying	K	Brooklyn Tech	T	61		16.7				
Other Related Courses:										
A) Graphic Arts	M	Stuyvesant	T	99		15.5				
B) Photography	M	Stuyvesant	T	88		33.5				
C) Building Construction	K	Brooklyn Tech	T	99		31.0				
D) Cabinet Making	M	Stuyvesant	T	25		7.8				
E) Woodworking	M	Stuyvesant	T	125		21.9				

* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VI - Cont'd.

SECONDARY LEVEL OCCUPATIONAL EDUCATION PROGRAMS
(DAY SCHOOL)

Occupational Cluster	Secondary Schools			Enrollments		Estimated Costs, $M				Proposed Additional Apportionment Costs (in Tax Levy)
						Tax Levy *				
	Boro	Name	Type	Regular	SIP	Regular	SIP	VEA	Other	
TECHNICAL HIGH SCHOOLS PROGRAMS (CONTINUED)										
F) Drafting	X M	H.S. of Science Stuyvesant	T T	757		109.7				
G) Mechanical Shop	K	Brooklyn Tech	T	90		17.5				
H) Metal Shop	K M	Brooklyn Tech Stuyvesant	T T	1,222		227.7				
I) Mechanical Drawing	K	Brooklyn Tech	T	1,710		228.9				
J) Ceramics	M	Stuyvesant	T	51		15.5				
K) Plastics	M	Stuyvesant	T	131		15.5				
L) Printing	K	Brooklyn Tech	T	134		19.4				
M) Science Shop	M	H. S. Science	T	479		73.7				
N) Industrial Design	K	Brooklyn Tech	T	1,976		174.6				
Funding Applicable to all Technical High Schools Programs								32.6		
Sub-Totals: Technical High Schools				12,138		1,731.6		32.6		750.0
TOTALS				282,680	1,356	53,843.4	261.4	2,634.0		12,026.0

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* Teacher and Supervisor Costs Only, In Thousands of Dollars.

TABLE VII

AFTER SCHOOL OCCUPATIONAL SKILLS PROGRAM ENROLLMENTS (ASOSP)

	ASOSP Sites				
Occupational Clusters	Boro	Name	Type	Enrollments	Est. VEA Costs, $M
BUSINESS AND DISTRIBUTIVE EDUCATION					
Data Processing	K	W.E. Grady	V	341	35.4
	M	L.D. Brandeis	A		
	X	Morris	A		
	K	W.H. Maxwell	V		
	Q	F. Lewis	A		
	M	N. Thomas	V		
Retail Sales	X	Morris	A	172	17.8
(a) Travel Agent	K	C. Barton	V		
	Q	Richmond Hill	A		
	M	G. Washington	A		
Office & Clerical Skills (Includes Bi-lingual) Class	K	A. Hamilton	V	533	55.3
	M	G. Washington	A		
	M	L.D. Brandeis	A		
	X	A. Stevenson	C		
	X	J. Adams	V		
	X	Morris	A		
	K	G. Wingate	A		
	K	S.J. Hale	V		
	K	W.H. Maxwell	V		
	Q	Richmond Hill	A		
	M	N. Thomas	V		
	X	G. Dodge	V		
Typing - Office Skills (Includes Bi-lingual)	M	L.D. Brandeis	A		
	X	A. Stevenson	C		
	X	J. Adams	V		
	X	Morris	A		
	K	C. Barton	V		

TABLE VII - Cont'd.

AFTER SCHOOL OCCUPATIONAL SKILLS PROGRAM ENROLLMENTS (ASOSP)

Occupational Clusters	ASOSP Sites			Enrollments	Est. VEA Costs, $M
	Boro	Name	Type		
BUSINESS AND DISTRIBUTIVE EDUCATION (CONT'D)					
Typing - Office Skills (Cont'd) (Includes Bi-lingual)	K	G. Wingate	A	1147	119.0
	K	S.J. Hale	V		
	K	W.H. Maxwell	V		
	Q	Richmond Hill	A		
	Q	F. Lewis	A		
	R	R. McKee	V		
	M	G. Washington	A		
	M	N. Thomas	V		
	X	G. Dodge	V		
Stenography (Includes Bi-lingual class)	K	S.J. Hale	V	107	11.2
	M	L.D. Brandeis	A		
	X	G. Dodge	V		
Sub-Totals: Business and Distributive Education				2300	238.7
HEALTH CAREERS					
Nurses' Aide	M	Polyclinic & Beth Israel	O	22	2.3
Bio-Medical Lab Techniques	K	C. Barton	V	53	5.5
Dental Technology	K	C. Barton	V	20	2.1
Hospital Clerical Aide	K	W.H. Maxwell	V	34	3.5
Laboratory Technology	K	W.H. Maxwell	V	58	6.0
Medical Technology	K	C. Barton	V	28	2.9
Nursing Skills	K	C. Barton	V	109	11.3
	K	S. Hale	C		
Sub-Totals: Health Careers				324	33.6

TABLE VII - Cont'd.

AFTER SCHOOL OCCUPATIONAL SKILLS PROGRAM ENROLLMENTS (ASOSP)

Occupational Clusters	ASOSP Sites			Enrollments	Est. VEA Costs, $M
	Boro	Name	Type		
TRADE AND TECHNICAL EDUCATION PROGRAMS					
Automotive Trades					
A) Auto Body Repair	X	A. Stevenson	C	125	13.0
	K	Automotive	V		
B) Auto Service Station Attendant	K	Automotive	V	104	10.8
	X	A.E. Smith	V		
C) Auto Maintenance & Repair	K	Automotive	V	500	51.9
	Q	F. Lewis	A		
	K	G. Wingate	A		
	R	Tottenville	C		
	K	W.E. Grady	V		
	Q	M. Van Buren	A		
	R	R. McKee	V		
Aviation Trades	Q	Aviation	V	151	15.7
	K	E. New York	V		
Carpentry Trades:					
Carpentry & Cabinetmaking	Q	F. Lewis	A	218	22.6
	K	A. Hamilton	V		
	K	E. New York	V		
	X	A. Stevenson	C		
	X	A.E. Smith	V		
	R	Port Richmond	A		
House Construction	K	G. Wingate	A	27	2.8

TABLE VII - Cont'd.

AFTER SCHOOL OCCUPATIONAL SKILLS PROGRAM ENROLLMENTS (ASOSP)

Occupational Clusters	ASOSP Sites			Enrollments	Est. VEA Costs, $M
	Boro	Name	Type		
TRADE AND TECHNICAL EDUCATION PROGRAMS (CONT'D)					
Commercial Art Trades	Q	Richmond Hill	A	209	21.7
	M	Parsons School of Design	O		
Cosmetology Trades	X	J. Adams	V	246	25.5
	R	R. McKee	V		
	K	S.J. Hale	V		
	K	W.H. Maxwell	V		
Food Trades	M	Food & Maritime	V	193	20.0
Marine Trades: Small Boat Engine Operation and Maintenance	M	Food & Maritime	V	63	6.5
Fashion Trades	X	J. Adams	V	233	24.2
	Q	F. Lewis	A		
	M	Fashion Ind.	V		
Electro-Mechanical Trades					
A) Radio/TV Repair	K	East New York	V	76	7.9
	K	W.E. Grady	V		
B) Small Appliance Repair	K	Alfred E. Smith	V	24	2.5
C) Small Engine Repair	X	Aviation	V	46	4.8
Electricity/Electronics Trades: Electrical Installation	K	East New York	V	71	7.4
	K	W.E. Grady	V		

TABLE VII - Cont'd.

AFTER SCHOOL OCCUPATIONAL SKILLS PROGRAM ENROLLMENTS (ASOSP)

Occupational Clusters	ASOSP Sites			Enrollments	Est. VEA Costs, $M
	Boro	Name	Type		
TRADE AND TECHNICAL EDUCATION PROGRAMS (CONT'D.)					
Commercial Photography Trades	M	G.Washington	A	23	2.4
Mechanical Drawing	Q	Aviation	V	82	8.5
	K	A. Hamilton	V		
	R	Tottenville	A		
Printing Trades	Q	F. Lewis	A	63	6.5
	K	M.H. Maxwell	V		
	K	A. Hamilton	V		
Machine and Metal Trades	R	R. McKee	V	300	31.1
	K	East New York	V		
	Q	Aviation	V		
	K	Bushwick	A		
	R	Tottenville	A		
	K	A. Hamilton	V		
	K	Automotive	V		
Sub-Totals: Trade and Technical Education Programs				2,754	285.8
Totals				5,378	558.1

TABLE VIII

COOPERATIVE EDUCATION PROGRAMS (COOP)

	COOP Sites			Enrollments		Estimated Costs, $M	
Occupational Clusters	Boro	Name	Type	Alternate	Part-Time	Tax Levy*	VEA
AGRICULTURAL PROGRAMS							
Park Maintenance and Ornamental Horticulture	X	W.H. Taft	A	9	1	5.2	32.0
	Q	Jamaica	A				
	X	D.Clinton	A				
	X	J.Monroe	A				
	X	T.Roosevelt	A				
	K	Pacific	O				
Horticulture, Landscaping, Gardening	X	C.Columbus	A	64	1	34.1	
	Q	J.Bowne	A				
	X	T.Roosevelt	A				
	K	S.Bay	A				
Sub-Totals: Agricultural Programs				73	2	39.3	32.0
BUSINESS AND DISTRIBUTIVE EDUCATION PROGRAMS							
Office Careers	82 Ac.,Comp.,& Voc.H.S.s			3682	1763	2850.8	
Merchandising	82 Ac.,Comp.,& Voc.H.S.s			178	1115	676.9	
Air Line Industry	Q	A.Martin	C	12		6.3	
Sub-Totals: Business and Distributive Education Programs				3872	2878	3534.0	
HEALTH CAREERS PROGRAMS							
Practical Nursing	K	C.Barton	C	735	-	384.8	143.1
	K	Curtis	A				
	X	G.Dodge	V				
	K	E.Whitney	V				
	Q	Hillcrest	C				
	X	Jane Addams	V				
	M	J.Richman	A				

TABLE VIII - Cont'd.

COOPERATIVE EDUCATION PROGRAMS (COOP)

	COOP Sites			Enrollments		Estimated Costs, $M	
Occupational Clusters	Boro	Name	Type	Alternate	Part-Time	Tax Levy*	VEA
HEALTH CAREERS PROGRAMS (CONTINUED)							
Practical Nursing (Continued)	M	M.D.Bacon	V				
	K	Morris	A				
	Q	Queens Voc.	V				
	A	W.Irving	A				
Ward Aides	M	J.Richman	A	1	14	7.9	
	X	J.Monroe	A				
	R	New Dorp	A				
	R	Curtis	C				
	K	Pacific	A				
Diet Aides	X	Morris	A	20	9	15.2	
	X	J.Monroe	A				
	M	J.Richman	A				
	X	T.Roosevelt	A				
	K	A.Lincoln	A				
	R	Curtis	A				
	A	W.Irving	A				
	R	Port Richmond	A				
Laboratory Helper	K	S.Bay	A	5	9	7.3	
	X	Morris	A				
	X	J.Monroe	A				
	M	J.Richman	A				
	K	G.Westinghouse	V				
Medical Office Assistants	X	J.Monroe	A	53	67	62.8	49.4
	K	E.District	A				
	K	S.Bay	A				
	K	J.Dewey	A				
	Q	Flushing	A				
	M	Haaren	A				
	X	C.Columbus	A				

(Continued)

TABLE VIII - Cont'd.

COOPERATIVE EDUCATION PROGRAMS (COOP)

	COOP Sites			Enrollments		Estimated Costs, $M	
Occupational Clusters	Boro	Name	Type	Alternate	Part-Time	Tax Levy*	VEA
HEALTH CAREERS PROGRAMS (CONTINUED)							
Medical Office Assistants (Continued)	M	G.Washington	A				
	K	E.Whitney	V				
	K	F.Hamilton	A				
	K	S.J.Tilden	A				
	K	Midwood	A				
	K	S.J.Hale	C				
	X	G.Dodge	V				
	K	A.Lincoln	A				
	R	Curtis	A				
	R	New Dorp	A				
	M	W.Irving	A				
	X	W.H.Taft	A				
Nurses'Aides	K	E.Whitney	V				
	X	J.Addams	V				
	K	S.J.Hale	C				
	M	W.Irving	A				
	M	M.D.Bacon	V				
	M	J.Richman	A	201	9	110.0	
	X	Morris	A				
	Q	Bayside	A				
	M	G.Washington	A				
	R	Port Richmond	A				
	X	W.H.Taft	A				
	X	J.Monroe	A				
	K	Pacific	O				
Optical Workers	K	G.Westinghouse	V	2	3	2.6	
Sub-Totals: Health Careers Programs				1,017	111	590.6	192.5

TABLE VIII - Cont'd.

COOPERATIVE EDUCATION PROGRAMS (COOP)

Occupational Clusters	COOP Sites			Enrollments		Estimated Costs, $M	
	Boro	Name	Type	Alternate	Part-Time	Tax Levy*	VEA
TRADE/TECHNICAL PROGRAMS							
Automotive Trades	M	Haaren	A	55	46	52.8	
	Q	M.Van Buren	A				
	X	C.Columbus	A				
	K	E.District	A				
	R	P.Richmond	A				
	R	Tottenville	C				
	K	Automotive	V				
	K	S.J.Tilden	A				
	K	A.Lincoln	A				
	Q	B.Cardozo	A				
	K	Pacific	O				
	R	Curtis	A				
	R	New Dorp	A				
	Q	Newtown	A				
	Q	LaGuardia	O				
	Q	Mid.Sch.	O				
	X	J.Monroe	A				
Building/Construction, Woodworking, Cabinet-Making	X	T.Roosevelt	A	12	10	11.5	
	X	C.Columbus	A				
	X	H.Lehman	A				
	Q	Flushing	A				
	K	E.Whitney	V				
	K	A.Lincoln	A				
	Q	B.Cardozo	A				
	K	Pacific	O				
	K	A.Hamilton	V				
Clocks, Watches, Jewelry, Office Machines	K	G.Westinghouse	V	8	7	7.9	
	X	S.Gompers	V				

TABLE VIII - Cont'd.

COOPERATIVE EDUCATION PROGRAMS (COOP)

Occupational Clusters	COOP Sites Boro	COOP Sites Name	COOP Sites Type	Enrollments Alternate	Enrollments Part-Time	Estimated Costs, $M Tax Levy*	Estimated Costs, $M VEA
TRADE/TECHNICAL PROGRAMS (CONTINUED)							
Food Trades	X	T.Jefferson	A	69	727	416.8	
	M	Haaren	A				
	K	J.Dewey	A				
	X	H.Lehman	A				
	X	C.Columbus	A				
	M	C.E.Hughes	C				
	Q	S.Gardens	A				
	R	Curtis	A				
	Q	F.Lewis	A				
	X	Morris	A				
	X	E.Childs	A				
	Q	B.Cardozo	A				
	Q	R.Hill	A				
	Q	Flushing	A				
	M	L.D.Brandeis	A				
	Q	W.C.Bryant	A				
	Q	J.Adams	A				
	X	W.H.Taft	A				
	K	E.District	A				
	Q	Newtown	A				
	R	New Dorp	A				
	K	S.Shore	C				
	R	Tottenville	C				
	R	Port Richmond	A				
	K	N.Utrecht	A				
	M	W.Irving	A				
	M	G.Washington	A				
	X	J.Monroe	A				
	Q	LaGuardia	O				
	K	Canarsie	A				
	K	E.Hall	A				
	K	Pacific	O				
	K	J.Madison	A				
	K	A.Lincoln	A				
(Continued)	K	Midwood	A				

TABLE VIII - Cont'd.

COOPERATIVE EDUCATION PROGRAMS (COOP)

Occupational Clusters	COOP Sites			Enrollments		Estimated Costs, $M	
	Boro	Name	Type	Alternate	Part-Time	Tax Levy*	VEA
TRADE/TECHNICAL PROGRAMS (CONTINUED)							
Food Trades (Continued)	K	S.J.Tilden	A				
	M	S.Park	A				
	K	S.Bay	A				
	X	T.Roosevelt	A				
	K	F.Hamilton	A				
	M	N.Thomas	C				
	K	Lafayette	A				
Machine Shop	K	A.Hamilton	V				
	R	Tottenville	C				
	R	P.Richmond	A				
	M	G.Washington	A	1	22	12.0	
	X	J.Monroe	A				
	Q	Newtown	A				
	R	Curtis	A				
	Q	B.Cardozo	A				
Graphic Arts	R	P.Richmond	A				
	K	E.District	A				
	Q	W.C.Bryant	A				
	K	A.Hamilton	V	17	90	56.0	
	Q	R.Hill	A				
	M	N.Y.S.Printing	V				
	K	Pacific	O				
	R	New Dorp	A				
Electrical Trades	K	G.Westinghouse	V				
	X	S.Gompers	V				
	X	D.Clinton	V				
	X	E.Childs	A	28	6	17.8	
	K	A.Hamilton	V				
	M	L.D.Brandeis	A				
	Q	Newton	A				
	X	J.Monroe	A				

TABLE VIII - Cont'd.

COOPERATIVE EDUCATION PROGRAMS (COOP)

Occupational Clusters	COOP Sites Boro	COOP Sites Name	COOP Sites Type	Enrollments Alternate	Enrollments Part-Time	Estimated Costs, $M Tax Levy*	Estimated Costs, $M VEA
TRADE/TECHNICAL PROGRAMS (CONTINUED)							
Fashion Trades	K	C.Barton	C	25	92	61.3	
	X	E.Childs	A				
	Q	B.Cardozo	A				
	Q	R.Hill	A				
	Q	Flushing	A				
	M	L.D.Brandeis	A				
	Q	W.C.Bryant	A				
	Q	J.Adams	A				
	M	Fashion Ind.	V				
	M	S.Park	A				
	K	J.Madison	A				
	K	Pacific	O				
	R	Curtis	A				
	R	New Dorp	A				
	Q	Newtown	A				
	K	E.Hall	A				
	K	Canarsie	A				
	K	LaGuardia	O				
Sub-totals: Trade/Technical Programs				215	1,000	636.1	
Funding Applicable to Total COOP Programs							452.0
Totals: COOP Programs				5,177	3,991	4,800.0	676.5

SECTION VI - PART 2

THE SECONDARY OUTPUT OF TRAINEES

THE SECONDARY OUTPUT OF TRAINEES

Because of the uncertainties in projections of job openings, and the lack of information on job requirements; that is, levels of skills training, language fluency, experience, etc., no precise bases are available for matching numbers of job openings with numbers of trainees in the various occupational areas. The problem is not only with the employment side of the "ledger" since it is also difficult to quantify the training output of all regional programs, especially by occupational areas. There are many reasons for the unreliability of total trainee output figures and the numbers of trainees entering the job market. These will be explained as they relate to specific types of training systems.

Generally, reasonable estimates of total trainees can be developed on the basis of secondary school graduates, and the numbers of out-of-school youths and adults completing training programs. However, the data are still incomplete since these totals may not include the numbers of students who have received adequate training for employment but are not graduates or "completers." This would include, for example, some of the secondary and post-secondary "drop-outs" and "stop-outs".

In the case of public secondary school training, and several of the adult training programs, reasonable data can also be obtained on the numbers of individuals trained for employment in specific occupational areas. Unfortunately, in several of the large training systems, this information is not available, or not accessible.

However, total numbers of trainees do not represent particularly useful information since one needs to know how many will be entering the short-term as well as the long-term job market - and in what occupational areas. At this point, available information becomes so uncertain as to be of very limited value. Unfortunately, it is precisely this data that is required to determine if training output corresponds with numbers of job openings.

To further complicate matters, it must be recognized that job openings in the City also represent potential employment opportunities for the thousands of non-City residents seeking jobs in New York City (see Table IV-A). Also, job openings outside New York City, and perhaps even beyond the greater metropolitan area, must be taken into account as realistic job opportunities for City residents and trainees. Finally, it is not practical to match "new" trainees with numbers of job openings since economic conditions often produce totally new categories of job seekers. For example, unemployed college graduates take entry-level clerical jobs and housewives resume or begin work for family support and other reasons.

This shaky data base does not make it easy to assess whether or not trainees are being prepared for non-existent jobs or that jobs will exist in areas where training is not being provided. Both situations may exist in a system as complex as that encountered in New York City. However, there is no "ledger process" available to date that can overcome the practical problems that are an outgrowth of the complexity, size, parochialism and bureaucracy which persuade this and every other urban area in the United States. Moreover the "ledger process" cannot accommodate the many variables offering individuals and groups in a regional work force, variables which relate to individual proclivities, talents, and interests. Nor can it for that matter fully encompass the fluctuations in the economy which produce high unemployment and the effects of run-away inflation. These are variables so numerous that they defy quantification.

In spite of this, the training situation is far from being without direction or worthwhile results. Non-formalized processes operate in conjunction with certain formal operations as data dissemination, informal communications, guidance, counseling and the like to provide a reasonable and fair measure of control over the types of training programs and the numbers trained for employment. Knowledgable administrators and teachers work diligently at preparing trainees with the required skills for immediate employment and they assist the trainees in gaining this employment. Obviously, in a time of depressed economy and extremely high unemployment, many of the problems of placement seem almost unsurmontable.

Then too, training programs, to some degree, inevitably become related to "client" interests and these interests can be and are directed to programs that offer opportunities for potential employment or continued education. Not insignificant is the fact that students, in the course of their training, gain transferrable skills, attitudes and disciplines which greatly augment their potential for employment in a variety of occupational areas.

The above comments pertain, to some degree, to all occupational programs and systems. However, in the sections immediately following, the discussion and data relate to the trainee output of public and private secondary school programs. Information related to the training output of programs for Out-of-School Youth and Adults is presented and discussed in a later section entitled, "The Regional Occupational Education Delivery System - Out-of-School Youth and Adults."

Vocational High Schools

In February 1976, 7,491 students were enrolled in the final term of the various training programs of Vocational High Schools. The following information indicates the anticipated plans of approximately 83% of these students as reported by their College Advisors, to the Office of College and Scholarship Guidance.

Attend 4-year Colleges		Number of Students
		1,572
CUNY	1,041	
SUNY	114	
Private Colleges in NYC	226	
Private Colleges in NYS Outside of NYC	60	
Private Colleges Outside of NYS	131	
Attend 2-year Colleges		1,982
CUNY	1,767	
SUNY	152	
Private Colleges	63	
Attend Other Post-Secondary Schools		185
Technical/Vocational	146	
Business	38	
Nursing	1	
Attend Transition Center at CUNY		145
Enter Employment		1,799
Other		510
Enter Military Service	329	
"Stop-Out" (No Decisions, Travel, etc.)	181	

Based on this survey, 29% of the students planned to enter the job market. For purposes of this report, it is also assumed that 29% of the 1,298 students whose plans were not accounted for also might enter the job market. This would suggest that 2,175 of the 8th term students could be seeking employment after June 1976. However, it must be recognized that all of the 8th term VAS students are prepared for entering the employment market.

In obtaining some estimates of the number of potential job entrants in specific occupational areas, the data in Table IX were developed to obtain registers in Trade and Technical, Business and Health Careers programs of Vocational High Schools. Applying percentages from the follow-up survey of June 1975 high school graduates, it was possible to estimate the numbers of 8th term students of Vocational High Schools who might seek employment in their areas of training. The results, also summarized in

Table IX, indicate the students, according to areas of training, who would likely enter or at least seek employment:

Area of Training	Number of Students	
Technical	136	
Trade, and Industry	1,350	
Health Careers	167	
Business and Distributive Education	545	
Estimated Total		2,198

This is, at least, a very rough approximation of potential job market entrants since: 1) circumstances will likely force additional students to seek employment rather than enter a period of post-secondary training, 2) those contemplating entering the job market may continue their education if employment is not found, and 3) students other than graduates may drop out of school to enter employment in areas that will use skills they have attained by the time of termination of their high school education.

Academic and Comprehensive High Schools

It is estimated that of the 35,404 June, 1976 graduates of Academic and Comprehensive High Schools, also 17% or slightly over 6,000 students will have entry level employment skills. The estimated distribution is as follows:

Discipline Areas		No. Students with Entry-Level Skills
Health Careers		1,580
Home Economics		323
Child Care	90	
Clothing	31	
Food Service	102	
Business and Distributive Education		3,902
Distributive Education	165	
Clerical	2,115	
Bookkeeping	1,217	
Data Processing	50	
Stenog/Secy/Typing	415	
Agriculture Careers		311
Total		6,016

Assuming again that the results of the following study of June 1975 graduates are applicable, it could be estimated that the following numbers of students would be seeking employment in their area of training:

Health Careers	395	
Home Economics	33	
Business and Distributive Education	1,005	
Agriculture Careers	83	
Total		1,516

This figure represents about 25% of those graduates prepared for entry-level employment. This percentage is higher than that expected for the aggregate Academic and Comprehensive High School graduates (ca 20%). This might be expected in view of the type of training these students have received. Again, the number of students entering employment could be larger if factors such as tuition, costs and elimination of "open admission" restrict college entrances. Also, some 36,000 students drop out of Academic and Comprehensive High Schools each year and some of these are also equipped with entry-level skills, especially in the areas of Business and Distributive Education. For some students, one year's training in typing can be adequate preparation for employment.

The Private High Schools

As noted earlier, 60,935 students were enrolled in private denominational and non-denominational high schools (grades 10-12) in 1974-5. Over 21,000 of these students were reported to be involved in occupational programs, primarily in business and commercial areas (see Appendix F).

While data are not available on the total numbers of graduates entering employment, estimates can be developed on the following basis:

1. 82% of the denominational high school students (43,215) are entolled in Roman Catholic schools. These schools graduated 13,089 students in 1975 (30% of total enrollments) and 1,902 of these entered employment. This represents an average of 14.5% of the high school graduates.

2. Other denominational high schools represented an enrollment of 9,368 students and it can probably be assumed that 30% of these students, or 2,837 graduated. It is expected that 7-7.5% of these graduates (ca. 206) entered employment.

3. In the same manner one can estimate that of the 8,352 private, non-denominational high school students, 183 entered employment upon graduation.

In total then, 2,291 graduates of private high schools entered employment upon graduatión. Of these, about 2,050 (90%) probably found employment in occupations as secretarial, stenographic, bookkeeping and related occupational areas. The other 240 graduates found or sought employment in areas as health services and in other entry-level positions.

TABLE IX

Public High School (8th Term) Students Trained for Employment

	Numbers of Public Secondary School Students	
Occupational Training Area	Trained for Employment and Candidates for Grad.	Expecting to Seek Employment
Technical Programs: Archit. Drafting, Computer Tech./Programming, Electro-Mech. Drafting, Radio Electronics Mechanics, Industrial Machine Design, and Other Tech.	522	136
Trade and Industry		
Auto Trades	611	190
Aviation Trades	618	93
Carpentry, Woodworking and Cabinet Making	174	56
Plumbing	79	25
Cosmetology	245	127
Electrical and Electro-Mechanical Trades	1027	230
Fashion Trades	437	303
Food Trades	88	32
Machine & Metal Trades	124	27
Maritime Trades	47	23
Printing Trades	240	84
Miscallaneous:		
Commercial Art	260	70
Commercial Photography	79	8
Interior Decorating	21	7
Jewelry Design & Mfg.	14	4
Mechanical Drawing	21	6
Sculpture & Stone Carving	17	4
Clock & Watch Repair	7	3
Dental Lab Processing	42	10
Climate Control & Refrigeration	42	10
Fur Manufacturing	17	5
Upholstery	26	10
Other	87	21
Sub-totals	4323	1350

TABLE IX - Cont'd.

Occupational Training Area	Numbers of Public Secondary School Students	
	Trained for Employment and Candidates for Grad.	Expecting to Seek Employment
Health Careers		
Health Assistants: Phys. and Tech. Assts., Aux. Health Assistants, Medical Assts., Doctors' Assistants.	383	95
Practical Nursing	136	35
Dental Assistants	89	22
Biomedical Lab Technicians and Health Occupations	61	15
Sub-totals	669	167
Business and Distributive Education		
Distributive Education	240	70
Accounting and Business	373	90
Clerical and General Commercial	495	124
Secretarial. Steno, Typing	869	261
Sub-totals	1,977	545
Total	7,491	2,198

SECTION 7

THE REGIONAL OCCUPATIONAL EDUCATION DELIVERY SYSTEM
OUT-OF-SCHOOL YOUTH AND ADULTS

THE REGIONAL OCCUPATIONAL EDUCATION DELIVERY SYSTEM
OUT-OF-SCHOOL YOUTH AND ADULTS

Progress in eliminating some of the obstacles to the efficient management of a comprehensive adult education delivery system, can be reported. Despite categorical and separate reimbursable funding for adult basic literacy programs (Welfare Education Plan and Title VI), services offered by both programs have been consolidated, producing a more cost-effective utilization of sites, and of administrative services. Programs and program components, geared to preparation for High School Equivalency (GED), have also been consolidated under a unified administrative umbrella, which in effect has provided centralized manegement of all GED services. In sum therefore, adults requiring adult basic literacy upgrading (8th grade minimum competencies), English-as-a-Second Language, and High School Equivalency preparation, may have access to such services in sites which may be shared by more than one program, and supervised by administrators who may serve more than one group of clients. Crucial services such as staff development, curriculum development, and other supportive educational efforts, will, through a central administration, produce better services in a more cost-effective and economic manner.

With the consolidation of services, and centralized management of adult literacy programs, critical issues, long deferred because of program fragmentation, are more readily addressed, and more amenable to solution.

In New York City for example, such critical issues as licensure and certification for teachers and counselors of adults, are now receiving appropriate attention, both on the local and State levels. Graduate school programs in teacher education are at long last being evaluated for their adequacy as training centers for adult educators both in literacy upgrading programs and in occupational skills programs.

Intensified efforts towards developing an organic relationship between literacy programs and occupational skills programs are being expanded. Tradition and historical precedent, which have tended to reinforce the isolation of both types of services, are being transformed into "gestalt" evaluation of the adult client's needs. While limited academic strengths are indeed an impediment to the adult seeking entry or reentry into the labor market, the acquisition of literacy skills competencies represents only one phase of the rehabilitative process. Ultimately, it is the total preparation of the adult for a productive career in the world of work which remains the consummate goal of adult education.

Academic strengths and occupational competency are mutually dependent. Together, they represent the enabling forces which can open career doors. The comprehensive system which the Center for Career and Occupational Education supports, is committed to easing the movement from literacy programs into occupational skills training. The central administration of both types of programs provides the mechanism necessary to insure barrier-free movement among the services. The reorganization of adult literacy programs, and administrative streamlining will help to soften the effect of budget cuts, and bring the system closer to comprehensiveness.

THE REGIONAL OCCUPATIONAL EDUCATION DELIVERY SYSTEM
OUT-OF-SCHOOL YOUTH AND ADULTS

New York City Board of Education

Included in this section is a summary chart which details enrollemnts in each of the Board of Education programs offering occupational skills training. These include Evening Trade Schools enrollments for the period prior to the budget cuts. Distributions by occupational cluster are also included in this chart for the Pre-Employment Program, the CETA II Project under the Manpower Development Training Program, and the Business and Distributive Education Program for disadvantaged adults.

Estimates of Regional Occupational Training Output

Estimates of training output (completers), in Board of Education programs are presented in Table X. These estimates are augmented by comparable charts containing estimates of the non-Board of Education adult public training sector, (CETA, Title I), the Private Sector, and the Post-Secondary Institutions, public and private.

The brief discussion of Private Trade Schools (pp. 169 and Appendix Table XII) points up the lack of definitive information on the training outputs of these schools. It is generally conceded that the annual enrollments are in the range of 15,000 to 20,000, but such figures do not reflect the numbers of completers, nor the areas in which they are trained, or employed. One would surmise that most of the enrollments are in the occupational areas of Business, Health Careers and Cosmetology with Business-related occupations representing the major training thrust.

TABLE X

FY'76 ADULT TRAINING OUTPUT: BOARD OF EDUCATION

	Est. Training Output			
Occupational Cluster	Pre-Employment	Evening Trade Schools	Manpwr. Dev.Trng: CETA	Disadv. Bus. & Dist. Ed.
SECRETARIAL/CLERICAL/ OFFICE	3,622	787	598	4,304
HEALTH CAREERS				
Health Careers	30	31		
Licensed Prac. Nursing			33	
TRADE AND TECHNICAL				
Air Conditioning & Refrigeration	203	467		
Air Pollution Control Techniques		1,252		
Automotive Trades	504	518		
Aviation Trades	203	166		
Auto Serv. Station Mechanic Helper	114		125	
Barbering	47			
Building Trades				
1. Plumbing	14	251		
2. Ornamental Ironwork	134			
Painter Trainees		78		
Blueprint Reading				
Glaziers				
3. Building Trades Apprentice		170		
4. Independent Contractor		61		
5. Building Maintenance	198	371		
Business Machine Mechanics & Repair	37			
Commercial Art	25			
Cosmetology	67	84		

TABLE X - Cont'd.

FY'76 ADULT TRAINING OUTPUT: BOARD OF EDUCATION

Occupational Cluster	Est. Training Output Pre-Em-ployment	Evening Trade Schools	Manpwr. Dev.Trng: CETA	Disadv. Bus. & Dist. Ed.
TRADE AND TECHNICAL (Cont'd.)				
Drafting & Drawing		129		
Driver Education		49		
Electrical Appliance Serviceman	99	52		
Electrical Trades	105	669		
Electrical Trades (Apprentices)		2,243		
Electrical Trades (Trainees)		81		
Electronic Data Processing	16	122		
Fashion Industries/ Needle Trades	785	589		
Fireman (Housing)	165	284		
Food Trades	375	179		
Horticulture	14			
Jewelry Making & Repair	180	17		
Machine Shop	21	159		
Mailroom Technology	43			
Occupational English		38		
Occupational Spanish	72			
Oil Heating	49	16		
Optical Mechanics		15		
Plumbing Apprentices		76		
Printing Trades	76	562		

TABLE X - Cont'd.

FY'76 ADULT TRAINING OUTPUT: BOARD OF EDUCATION

Occupational Cluster	Est. Training Output			
	Pre-Employment	Evening Trade Schools	Manpwr. Dev.Trng: CETA	Disadv. Bus. & Dist. Ed.
TRADE AND TECHNICAL (Cont'd.)				
Radio & TV	34	353		
Sheet Metal Trades		23		
Shoe Repair	14			
Transit Authority				
1. Subway Air Conditioning		46		
2. Air Brake		38		
Welding	46	161		
Welding - Apprentice		335		
Woodworking	14	67		
TOTALS:	7,306	10,539	756	4,304

TRAINING OUTPUT - OUT-OF-SCHOOL YOUTH AND ADULTS

CETA Title I - (Comprehensive Employment Training Act)

Under CETA Title I, a variety of training was offered to participants in FY'76. Placements in the labor market are detailed in Table XI for each of the following kinds of programs: A) Department of Employment Private On-the-Job Training, B) Economic Development Administration Private On-the-Job Training, C) Classroom Training, D) Public On-the-Job Training, E) Adult Work Experience, F) Public Service Employment, and G) Out-of-School Youth Work Experience. The other CETA Title I training programs -- In-School Youth Work Experience and Summer Work Experience -- are designed to enable participants to continue in or re-enter educational programs.

Classroom Training, Private On-the-Job Training and Adult Work Experience projects operate with the primary purpose of preparing participants for entry into competitive employment. Public Service Employment projects provide temporary jobs with public and non-profit agencies. The 1977 Title I Grant Application shows a shift in percentage of CETA efforts among these types of training programs. This proposed shift, from 9% to .5%, which decreases effort in Public Service Employment projects, reflects a desire to increase the number of CETA trainees prepared for unsubsidized placements.

At the present time, the NYC Department of Employment--through its advisory council for manpower affairs, the Manpower Planning Council--does not detail enrollments or placements by job title. However a directory of the career options offered by each of the Classroom Training Programs has been prepared for FY'76: CETA Title I Directory - Classroom Training (September 1976, the City of New York, Human Resources Administration, Manpower Planning Council).

Future chapters of this directory will cover the other CETA activities - On-the-Job Training, Work Experience, etc. It is hoped that follow-up data based on the offerings listed in this Directory will provide planners with a firmer fix on specific job market entrances in the next year.

The Private Hospitals

In addition to CETA Title I programs, a segment of training in the public sector consisted of courses offered in Registered Nursing and Licensed Practical Nursing in the City's private hospitals. Though figures are not available for completers of these programs for FY'76, they are expected to be similar to the FY'75 output:

RN: completers FY'75 - 409
LPN: completers FY'75 - 174

The data have been provided by the SED Bureau of Nursing, for the Metropolitan Regents Planning Region.

TABLE XI

CETA - TITLE I TRAINING OUTPUT: 7/1/75 - 6/30/76*

TYPE OF TRAINING	ENROLLMENTS		TERMINATIONS					
			ENTERED EMPLOYMENT		OTHER POSITIVE		NON-POSITIVE	
	PLANNED	ACTUAL	PLANNED	ACTUAL	PLANNED	ACTUAL	PLANNED	ACTUAL
Department of Employment Private OJT	4,844	5,535	2,681	2,892	95	79	754	1,085
Economic Development Admin. Private OJT	2,054	1,320	970	339	41	28	216	634
Classroom Training	9,074	9,992	4,576	3,979	510	339	2,252	2,756
Public OJT	1,666	1,530	528	343	94	214	289	321
Adult Work Experience	2,839	2,958	579	563	14	41	608	728
Public Service Employment	1,253	1,255	344	4	69	0	275	709
Out-of-School Youth Work Experience	3,061	3,361	285	100	24	280	663	943
TOTAL	24,791	25,951	9,963	8,220	1,063	981	5,057	7,176
In-School Youth Work Experience	3,850	4,237	54	41	3,352	345	444	558
**Summer Work Experience	31,414	31,414	-	0	31,414	31,414	-	0

* Human Resources Administration, Manpower Planning Council; Performance Data Summary.

** These two programs are designed to enable participants to continue in or re-enter educational programs. Entry into job market is not a priority.

TRAINING OUTPUT--THE COMMUNITY COLLEGES (CUNY)

The Office of Program and Policy Research of the City University of New York has performed a cohort analysis of the Fall 1970 entering class, Student Retention and Graduation at the City University of New York: Fall 1970 to Spring 1974. What clearly emerges from this study is the pattern suggested earlier in this section: students do not move directly as a block through their education to a career. Their paths are myriad. The flow is not from high school to work, or high school, to college, to work, but rather an eddying movement, as young people, leaving a compulsory education system, experiment and utilize their opportunities to move freely from educational institutions to jobs, and back again.

This movement clearly shows the inaccuracies that would be involved in deriving estimates of labor market entries from the total of 68,994 community college enrollees and the total of 9,653 graduates. One must also consider that students who left CUNY without having graduated are counted in the attrition rate, even though they may have transferred to an been graduated from a college outside the CUNY system. Information is not available on the number of students in this category nor on their current status. Further, the DATA BOOK (CUNY 1975-76) indicates that in the last four semesters (Fall '74 - Spring '76), 14,992 students entered the senior college of CUNY with advanced standing gained in the community colleges. This number includes 11,349 undifferentiated A.A., A.S., and A.A.S. graduates as well as 3,643 non-graduates eligible to transfer. In the available data, graduates from the immediately preceding semester are in no way separated out from graduates from any other preceding period. There is also no indication of when any of these students last attended a two-year college. The significance of this factor is discussed in the study cited above:

> "Return rates have been a topic of interest in the University because they are thought to be indicative of the "stopout phenomenon." This attendance pattern is believed to be prevalent at CUNY. Data from one study (Max, Pearl, How Many Graduate, New York: City University of New York, 1968) do suggest this was so for the students prior to 1970: of all students who entered Brooklyn, City, Hunter, and Queens Colleges in 1960, 47.8% graduated after four years, 70.6% graduated after seven years."

An updated and enlarged study similar to the report cited above, is now in preparation and may provide answers to some of the questions raised concerning students in community college career programs.

While considerable effort has been expended to quantify the scope of completers prepared for entry into the labor market, the validity and reliability of the figures obtained are, frankly, dubious. Furthermore, the problems associated with matching these dubious labor force entry estimates with equally soft data on job market openings, seem almost insurmountable. (A more thorough discussion of these problems has been presented in Section IV).

Notwithstanding the problems and apparent futility of developing a correspondence relationship between training output and job market openings, there are some benefits which can be counted. Among these benefits is 1) a clearer and more precise fix on the scope and variety of New York City's widely dispersed training efforts, and 2) a better assessment of the realistic limits of the ledger-process as applied to regional planning.

TABLE XII

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Air Conditioning & Refrigeration	Pre-Employment	Manhattan Voc (104) William E. Grady (163)	267
	Evening Trade Schools	Manhattan Voc (320) Metropolitan (162) Samuel Gompers (30) William E. Grady (217)	729
Air Pollution Control Techniques	Evening Trade Schools	Alfred E. Smith (272) Automotive (41) Aviation (346) Central Commercial (96) Fashion Industries (41) Geo. Westinghouse (32) Manhattan Voc (77) Metropolitan (316) Printing Trades (136) Samuel Gompers (287) Thomas Edison (74) William E. Grady (251)	1969
Automotive Trades	Pre-Employment	Alfred E. Smith (489) William E. Grady (175)	664
	Evening Trade Schools	Alfred E. Smith (219) Automotive (296) Thomas Edison (143) William E. Grady (140)	798
	CETA	MDTP Centers (154)	154

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Aviation Trades	Pre-Employment	Aviation (287)	267
	Evening Trade Schools	Aviation (260)	260
Auto Service Station Mechanic Helper	Pre-Employment	Alfred E. Smith (15)	15
Barbering	Pre-Employment	Metropolitan (17) Queens Voc (45)	62
Building Trades 1. Plumbing	Pre-Employment	Metropolitan (18)	18
	Evening Trade Schools	Alfred E. Smith (100) Brooklyn Tech (45) Metropolitan (169) Queens Voc (60) Thomas Edison (18)	392
2. Ornamental Ironwork	Pre-Employment	Metropolitan (177)	177
Painter Trainees Blueprint Reading Glaziers	Evening Trade Schools	Metropolitan (26) Brooklyn Tech (27) Queens Voc (42) Samuel Gompers (27)	122
3. Building Trades Apprentice	Evening Trade Schools	Aviation (46) Metropolitan (219)	265
4. Independent Contractor	Evening Trade Schools	Queens Voc.	96

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
5. Building Maintenance	Pre-Employment	Brooklyn Tech (35) Manhattan Voc (203) Metropolitan (22)	260
	Evening Trade Schools	Metropolitan (528) Queens Voc (52)	580
Business Machine Mechanics & Repair	Pre-Employment	Metropolitan (43)	43
Commercial Art	Pre-Employment	Queens Voc (33)	33
Cosmetology	Pre-Employment	William E. Grady (88)	88
	Evening Trade Schools	Eli Whitney (47) Jane Addams (43) Wm. H. Maxwell (20)	110
Drafting and Drawing	Evening Trade Schools	Manhattan (21) Automotive (42) Brooklyn Tech (89) Manhattan (28) Queens Voc (21)	201

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities		Enrollments 1975-76
Driver Ed	Evening Trade Schools	Fashion Industries	(77)	77
Electrical Appliance Serviceman	Pre-Employment	Metropolitan	(76)	130
		Food Trades	(54)	
		Alfred E. Smith	(0)	
		Fashion Industries	(0)	
	Evening Trade Schools	Brooklyn Tech	(24)	82
		Eli Whitney	(19)	
		Fashion Industries	(39)	
Electrical Trades	Pre-Employment	Metropolitan	(72)	138
		William E. Grady	(66)	
		Eli Whitney	(11)	
	Evening Trade Schools	Geo. Westinghouse	(21)	1045
		Transit Authority	(119)	
		Metropolitan	(148)	
		Queens Voc	(97)	
		Samuel Gompers	(271)	
		Thomas Edison	(164)	
		William E. Grady	(132)	
		Brooklyn Tech	(82)	
Electrical Trades (Apprentices)	Evening Trade Schools	Aviation	(106)	3504
		Chas. E. Hughes	(3171)	
		Metropolitan	(73)	
		Queens Voc.	(107)	

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities		Enrollments 1975-76
Electrical Trades (Trainees)	Evening Trade Schools	Queens Voc	(127)	127
Electronic Data Processing	Pre-Employment	Thomas Edison	(21)	21
	Evening Trade Schools	Central Commercial	(97)	191
		Queens Voc	(60)	
		Wm. H. Maxwell	(34)	
Fashion Industries/Needle Trades	Pre-Employment	Fashion Industries	(953)	1033
		Food Trades	(24)	
		Metropolitan	(17)	
		Queens Voc	(39)	
	Evening Trade Schools	Eli Whitney	(30)	921
		Fashion Industries	(804)	
		Jane Addams	(63)	
		Wm. H. Maxwell	(24)	
Fireman (Housing)	Pre-Employment	Metropolitan	(217)	217
	Evening Trade Schools	Metropolitan	(443)	443

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Food Trades	Pre-Employment	Food Trades (400) Metropolitan (6) Queens Voc (88)	494
	Evening Trade Schools	Food Trades (279)	279
Health Careers	Pre-Employment	Aviation (18) Queens Voc (22)	40
	Evening Trade Schools	Queens Voc (20) Eli Whitney (11) Fashion Industries (16)	47
Health Careers: Licensed Practical Nursing	CETA	MDTP Centers (46)	46
Horticulture	Pre-Employment	Metropolitan (7) Thomas Edison (12)	19
Jewelry Making and Repair	Pre-Employment	Food Trades (237)	237
	Evening Trade Schools	Geo. Westinghouse (27)	27

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Machine Shop	Pre-Employment	Manhattan (16) Thomas Edison (12)	28
	Evening Trade Schools	Automotive (20) Brooklyn Tech (52) Manhattan (109) Queens Voc (31) Thomas Edison (16) Metropolitan (20)	248
Mailroom Technology	Pre-Employment	Alfred E. Smith (57)	57
Occupational English	Evening Trade Schools	Printing Trades (56)	56
Occupational Spanish	Pre-Employment	Central Commercial (14) Queens Voc (84)	95
Oil Heating	Pre-Employment	Alfred E. Smith (10) William E. Grady(54)	64
	Evening Trade Schools	Printing Trades (25)	25

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Optical Mechanics	Evening Trade Schools	Geo. Westinghouse (24)	24
Plumbing Apprentices	Evening Trade Schools	Alfred E. Smith (982) Aviation (103) Wm. H. Maxwell (34)	1119
Printing Trades	Pre-Employment	Metropolitan (68) Printing Trades (32)	100
	Evening Trade Schools	Printing Trades (850) Brooklyn Tech (29)	879
Radio & TV	Pre-Employment	Samuel Gompers (25) Alfred E. Smith (20)	45
	Evening Trade Schools	Charles E. Hughes (202) Brooklyn Tech (70) Queens Voc (145) Samuel Gompers (100) William E. Grady (35)	552

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Secretarial/Clerical/Office	Pre-Employment	Alfred E. Smith (562)	4766
		Central Commercial (1414)	
		Chas. E. Hughes (20)	
		Food Trades (1134)	
		Metropolitan (374)	
		William E. Grady (1262)	
	Evening Trade Schools	Central Commercial (1078)	1229
		Eli Whitney (42)	
		Printing Trades (12)	
		Queens Voc (37)	
		Wm. H. Maxwell (60)	
	CETA	MDTP Centers (957)	957
	Business & Distributive Education for Disadvantaged Adults (VEA)	City-wide (6932)	6932
Sheet Metal Trades	Evening Trade Schools	Manhattan (36)	36
Shoe Repair	Pre-Employment	Metropolitan (18)	18

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Transit Authority			
Subway Air Conditioning	Evening Trade Schools	William E. Grady (40) Samuel Gompers (32)	72
Air Brake		William E. Grady (27) Samuel Gompers (32)	59
Welding	Pre-Employment	Manhattan (26) Queens Voc (35)	61
	Evening Trade Schools	Manhattan (252)	252
Welding - Apprentice	Evening Trade Schools	Alfred E. Smith (38) Aviation (15) Wm. H. Maxwell (421) Samuel Gompers (50)	524
Woodworking	Pre-Employment	Manhattan (19)	19
	Evening Trade Schools	Eli Whitney (10) Geo. Westinghouse (19) Manhattan (50) Thomas Edison (25)	104

TABLE XII - Cont'd.

OCCUPATIONAL TRAINING PROGRAMS AND RELATED EDUCATIONAL SERVICES
ADULT EFFORTS

Occupational Cluster	Program Sponsor	Facilities	Enrollments 1975-76
Adult Basic Education	Title VI		10,142
	Welfare Education Program		2,490
English as a Second Language	Title VI		14,375
	Welfare Education Program		2,993
LESA (English) for Persons with Limited English Speaking Abilities	Manpower Development Training Program		809

TABLE XIII

Budget Allocations for Adult Reimbursable Programs
Board of Education
FY 1975-76

Pre-Employment Program	$ 1,148,000
Business & Distributive Education for Disadvantaged Adults	$ 259,917
Adult Consumer & Homemaking Program	$ 489,895
Title VI, Adult Education Act	$ 2,500,000
High School Equivalency Preparation	
New York State Civil Service Division Employees	$ 76,819
New York State Department of Mental Hygiene Employees	$ 297,925
WREP Enrollees (CETA Grant)	$ 203,258
High School Equivalency Consortium	$ 861,900
English as a Second Language for Vietnamese	$ 75,000
Welfare Education Plan	$ 2,285,000
Manpower Training (CETA)	$ 3,500,000
LESA (Occupational Training for Adults with Limited English Speaking Ability)	$ 655,000

SECTION 8

THE PRIVATE SECTOR

THE PRIVATE SECTOR

New York City Proprietary Institutions

The summary of private sector services which is included in this section provides an overview of the scope and variety of proprietary school offerings in the City of New York. Services are classified into four main occupational clusters, with appropriate course offerings detailed within the clusters. Information presented in Appendix Table XII indicates the number of schools and the borough in which the course offerings are available, but does not give enrollment data.

A total of 153 proprietary schools are licensed and in operation to varying degrees in the City at this time; however, only 97 of these schools were considered in the formulation of this summary. The summary represents those schools that have secured a "Manpower Contract"[1] number and/or accreditation from the National Association of Trade and Technical Schools.[2] This limitation is intended to offset or balance the effect of the number of newly licensed schools (29) and the high rate of school closings (18) over a 16 month period.

Predictably, and generally consistent with job market or placement opportunities, training is heavily concentrated in the broad clusters of Business and Distributive Education and the Health Services. While the greatest diversity in course offerings appears under the Trade and Technical services, it is not likely that enrollments in these areas match those in the Business and Health courses, with the possible exception of Cosmetology. It is also noteworthy that despite the many public agencies offering programs in English-as-a-Second Language and preparation for the High School Equivalency, private agencies also offer these programs. While precise numbers are not available, an estimate of the total proprietary school enrollments would fall in the range of fifteen and twenty thousand.

From the classifications available, it is evident that Data Processing continues to be a very popular training option. Nine schools are listed as offering computer programming or computer operations, and three offer keypunch operations. In the Health Services, there are five schools which offer Pediatric and Geriatric Care, and six which offer Dental Assistant preparation. Preparation for Medical Assistants and Medical Laboratory Assistants is available in nine schools.

The range of courses offered in the Trade and Technical, and Service clusters parallels the offerings in the vocational high schools and evening trade schools with the following exceptions: Diesel Mechanics, Electrolysis and Floor Covering. The summary identifies those courses not available in the public sector by a double asterisk (**). Some of the courses so identified may, however, be included within broader clusters in the post-secondary institutions of the City University.

Follow-up data to verify placement records of the private schools is not available. Although there has been considerable skepticism expressed concerning the claims made by some of the schools, particularly those training in Data Processing skills, there is no concrete evidence available to us to determine the justice or injustice of such claims. It is evident, however, that by their nature and size, proprietary schools have a flexibility not readily shared by the public sector. They have the advantage of being able to respond to individual scheduling needs, and may institute specialized training more spontaneously and with less risk. It is this unique flexibility rather than the uniqueness of the courses offered which has made the private sector a practical referral source for public school students in specialized cases.

A demonstration program which employs this strategy has been in operation for the past three years with the support of VEA funds to cover tuition and administration. Out-of-school youth in the Auxiliary Services for High Schools have, on an individualized basis, been referred to bona-fide private schools to receive training. Mainly, referrals of this nature have been made not because comparable offerings were not available in the public sector, but rather because flexibility and concentration of scheduling is not possible in the public sector. Students who require intensive, full-time training for quick entry into the labor market are more likely to be accommodated in the private sector. Private sector institutions with whom such contractual arrangements have been made total 40.

The most recent summary of placements under this program indicates the following:

No, of Students Enrolled - 256
No. Completing - 84
No. in Training - 88
No. Dropped Out - 84
No. Continuing Education - 7
No. Employed - 47

(Of the 84 students completing, 47 have found employment, 7 have chosen to continue their education.)

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[1] Schools having manpower contract numbers have been examined for and judged in compliance with quality of facilities, placement records, and other educational standards. Those holding contract numbers are periodically reviewed and subject to audit by the Office of the Comptroller.

[2] Accreditation is given to those schools which comply with two or more years of operational experience and meet a list of criteria. Criteria include ability to meet stated objectives, ability to maintain current and adequate physical facilities, ability to demonstrate satisfactory student progress and offer job placement assistance.

SECTION 9

THE POST-SECONDARY SECTOR

THE POST-SECONDARY SECTOR

Introduction - The 1976 Master Plan, CUNY

Activities related to the development of a Career Education Plan for the Post-Secondary sector were begun in the late Spring of 1976, at the height of the City University crisis, and while a Master Plan for the City University was under development. This Master Plan, mandated every four years by the New York State Board of Regents, was completed on September 27, 1976 and approved by the Board of Higher Education, shortly thereafter. Its contents were vaguely predicted by several of the sources contacted during the crisis period.

A copy of this Plan, just received, predictably raises more questions than are answered. In the introduction to the Plan, great pains are taken to establish the limited capabilities of the Plan.

"This Master Plan . . . . . . is limited to the presentation of the broad directions which the University will follow in the near future in fulfillment of its current mission. As issues become clarified and solutions begin to emerge, it is likely that a number of changes will be proposed in the months ahead. They will be concerned with questions of program and scope, size and structure, resources and financing. They will be incorporated into the Master Plan by the formal process of amending the Plan. The University needs a period of stability to adjust operations to its altered circumstances and to enable it to regain forward momentum."

The section of the Plan devoted to "Recommendations for Future Directions" represents a plea for additional planning time. "There has been insuffícent time to complete a careful review of the needs, opportunities, and pressures of the future. A searching analysis of the future mission, structure, programs and financing of the University is underway . . . . . decision-making concerning these issues will be embodied in subsequent University policy statements.*

The issues outlined in the City University Master Plan do not differ from those raised in the body of this Regional Plan. The Master Plan indicates that time is needed to develop solutions to the problem issues. Quite appropriately, and consistent with the recommendations made in the Regional Plan, the City University Master Plan proposes a revised management system, with the authority and responsibility for central coordination and planning. The development of future plans for the City University and for the region will indeed largely depend upon the establishment of operational mechanisms to fulfill the promise of the 1976 Master Plan--"The University will seek to shape its future in bold and positive ways. It now possesses unusual opportunity to redefine its mission, programs, structure, and financing arrangements. It will seek to create new forms and approaches to meet the educational and social needs of New York City and New York State."*

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* Master Plan - City University of New York, September 1976.

The new definition of missions and programs, and the mechanisms which will be developed to implement them, will be framed in a total regional context, and developed in conjunction with all of the other service institutions operating in the region of the City of New York.

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THE POST-SECONDARY SECTOR

The Regional Plan

The competition between career-oriented programs and pre-professional training and "pure" liberal arts in post-secondary education has taken on a greater meaning today. Conflict regarding definitions and emphasis has been heightened. Today, most institutions of higher education, with the exception of those few traditional ones that are financially stable, are rethinking their curricula and planning new programs with an increased career focus. This new emphasis on the importance of career education should indeed be music to the ears of those who have long been struggling in the vineyard, unheralded, treated as second class. Now the time has come for those post-secondary institutions, the community colleges and selected proprietary schools, whose primary mission has always been vocational/occupational/career education, to lead the way.

Unfortunately, to paraphrase Dickens, "It is the best of times, it is the worst of times" to write a regional plan for an area that is dominated by the eight community colleges of the City University of New York (CUNY).

It is the best of times, because for the first time additional funds were made available to permit personnel to spend several months developing the post-secondary aspect of the New York City Regional Plan. This made it possible to develop the basis for a planning process.

First, the range of institutions to be included was broadened beyond the eight CUNY community colleges. The CUNY community colleges are: Borough of Manhattan, Bronx, Hostos, Kingsborough, LaGuardia, New York City and Queensborough. Staten Island and Medgar Evers, which are undergoing some change in status, are also included. The State University of New York Units within the City of New York are: the Fashion Institute of Technology and the College of Optometry. A private institution, Academy of Aeronaucics, submitted materials. The proprietary schools accredited by the New York State Board of Regents to grant two-year degrees which were contacted were: The Interboro Institute, The Wood School, Laboratory Institute of Merchandising, Technical Career Institute and Collegiate Institute, Inc. The Katherine Gibbs School was unable to participate.

Second, there was time to review responses from the institutions selected, to follow up with additional questions, and to organize the responses in a more cohesive form. It was also possible to research and collect additional materials.

Finally, it was possible to develop a background of needs as a basis for a post-secondary plan and to think about a "five year plan" in its broader perspectives. There was an opportunity to question "what has always been done," to consider new options and reordering of priorities, and even to ask questions which must wait to be answered immediately.

It is the worst of times because of the enrollment uncertainties facing CUNY, by far the largest provider of post-secondary career/vocational education to New York City students. The effect of tuition on the enrollment of poor and disadvantaged students, and of middle class students as well, is not yet certain. Earlier application cut-off dates may result in fewer minority students since they tend to apply late in the summer rather than April, as now required. Another unknown is the effect of new retrenchment programs which set higher standards for both administration and retention, particularly in the senior colleges, but also in the community colleges.

The severity of the financial cutbacks at CUNY has highlighted their urgent need for centralized comprehensive planning.

It is the worst of times because most of this planning is in mid-stream and has only recently begun to include all offices essential to comprehensive planning, i.e., academic, budget, master plan. Because planning at the Board of Higher Education is structurally separated from academic affairs, only persistent questioning revealed that a master plan using up-to-date systems of data-gathering and analysis has been completed but not published. Conversations revealed that a hard look has been taken at career education programs and important decisions have been made. However, the information is still confidential and is not reflected in this paper. Thus, it is possible that the following text may pose questions and suggest solutions that are close to adoption, or have been discarded based on information still confidential.

It is the worst of times because the fiscal crisis of New York City continues. The region has not yet felt those improvements in the economy that have been recorded in other parts of the country, and unemployment continues to be high. This affects planning by all post-secondary institutions intimately related to the job market.

Definition of Post-secondary Career Education

Before analyzing the materials submitted by the participating post-secondary institutions in the New York City region, it is necessary to define career education, or planning for career education, for the end of the 1970's and the beginning of the 1980's. Whether one surveys the current literature, or studies economic and business forecasts, or reviews the priorities of the New York State VEA Plan for 1977, it becomes clear that career education is more than groups of courses that may, or may not, relate to the job market.

Curricula

Relevant curricula are obviously primary, but they must demonstrate an improved understanding of business, its current needs and projected changes. This is more vital today than anytime in the past, particularly in the New York City region. While manpower and job data are considered "soft" by most planners, there is some agreement that the number of jobs in New York City will be fewer in the decade of the late 70's and early 80's than in the decade of the 60's. Of even greater importance to post-secondary education is the projection that the jobs still remaining will require higher levels of communication and inter-personal skills.

The availability of jobs and the types of available jobs will be affected by such factors as movement of corporate central offices outside the city; decline in manufacturing and its service industries; decline in wholesale and retail trade because of population decline and decline in median family income; technological changes affecting handling of materials and office services. Some growth is predicted in areas such as non-health technicians and computer occupations; health technicians, but not nurses with two-year degrees; certain categories within government service; aides in teaching, social work, and libraries. These economic and business trends would seem to be a sufficient departure from what has existed to require extensive reviewing, analyzing, and revising of career oriented curricula.

Basic Skills and Supportive Services

Closely related to curriculum development and revision for a comprehensive career education program are: an adequate basic skills program designed to improve reading, writing, and communication skills, and, a program of supportive services which includes new instructional materials and technologies.

There is considerable evidence that those post-secondary institutions emphasizing career education, particularly community colleges, have always had an "open admissions policy" more open than the liberal arts institutions. City University of New York took this policy a step further to open admissions completely and in greater numbers than had been attempted before. This meant more funds and personnel devoted to basic skills (reading, writing, math) and supportive services (tutoring, special materials, learning resource centers) on a broader scope than had been previously attempted. Now, it would seem that in a time of reductions caused by the fiscal crisis, teaching has been given the highest priority, resulting in cutbacks in those supportive services needed in a comprehensive career education program.

Yet, basic skills programs remain essential in New York City for all institutions (public, proprietary, and private) that are planning career education programs. One of the questions raised most frequently by business firms remaining in, or considering relocation to, New York City is whether there will be a suitable labor force for clerical, technical, and lower management positions. These future available jobs tend to be the very ones which require a higher level of communication skills.

It is interesting to note that in recent months, studies have been published which indicate that students entering even the best liberal arts colleges are deficient in communication skills. Hopefully, this will keep a spotlight on the problem ultimately producing adequate resources and planning, despite reduced funds and lower priority for such items.

Counseling and Placement

Hand in hand with curricula relevant to a changing job market, and to the breaking down of job stereotyping, is an adequate counseling and job placement program to prepare and to advise students of these changes.

These services should be made available to students throughout their attendance in school. To accomplish this goal, additional avenues for exchange of information should be established between the educational institutions and business firms on an industry basis, on a borough basis, or on a regional or even wider geographic area basis, depending upon the curriculum. This would make possible a new type, or more extensive, market research, regarding the movement and changes in business and industry in New York City. Information thus secured would be used both in curriculum planning and revision, and for job development and student counseling.

Staff Development

The final element in the process of strengthening career education is the preparation of faculty and staff serving post-secondary institutions. Short-term workshops and in-service institutes should emphasize teaching methodology, articulation between secondary and post-secondary curricula, remedial reading techniques, updating of technical skills, and improved understanding of students and their problems.

The nationwide movement to improve the quality of college teaching has taken much of its leadership from the community colleges. Several national associations and a number of community colleges have already established programs for faculty which tend to emphasize imaginative teaching.

One of the problems which results in a confusion of goals for career education programs at CUNY is related to a gap in understanding between the student body and the faculty. Students are drawn primarily from the New York City high school polyglot population of ethnic and economic groups, while the faculty derives essentially from a small, academically elite, national population that is almost exclusively middle class, male and white. Benefits of recent hiring practices designed to overcome this tap, will probably be undone by current faculty cutbacks.

Proposed Activities

Since the State Plan for the current year (1976-1977) was nearly in final form before this project began, it was decided that a "general regional plan" projecting four years (1977-81) into the future, with more specific projects outlined for 1977-78, would be more realistic than a five-year plan.

The data from the CUNY colleges was solicited by the Board of Higher Education on the same forms that were used in prior years for the Regional plan. As noted before, data solicitation was not coordinated with other CUNY master plan development activities. In essence, the CUNY community college campus reporters supplied information in the same way they always had in the past, i.e., a series of projects and activities that are not a "plan" but a "wish list" of VEA proposals that are under consideration for FY 1977 funding or will be submitted for funding in FY 1978. These campus reporters are not planners. In many instances they are faculty or staff most closely involved with securing resources for expansion of college programs and course options, or purchase of equipment and supplies, or hiring of faculty for a specific classroom course. A few of the colleges arranged the specific activities into a campus framework, but none worked from a CUNY-wide set of goals or objectives. In a number of instances, the CUNY colleges did indicate new programs they hoped to undertake as well as some long range plans of programs to explore. These efforts were designed to keep curricula in harmony with the job market. In August, the Presidents of several of the CUNY colleges were asked to review the lists of activities that had been developed in the Spring, and to withdraw any program not already approved by the Board of Higher Education. It is unlikely that any new program will be approved during the fiscal emergency. A few programs were withdrawn. Future planning and fiscal developments may result in further reduction of programs that are anticipated at this time.

This difficulty of securing appropriate data raises two problems. The first problem, the use of VEA proposal lists by the colleges as planning documents, can be easily overcome. Those needing information about numbers, scope, and variety of career education projects under current consideration by the CUNY campuses can secure it as a result of a new procedure instituted by VEA for fiscal year 1977. Under the grant program, preliminary proposals were submitted for initial review. From these, selected projects were invited to submit complete proposals, from which final awards were made. The final proposals, in summary form, were also reviewed by local and regional clearing houses. At any step, lists of projects and their nature could be developed for informational purposes.

The second problem of securing the proper data is not so easily resolved. Part of the difficulty lies in the nature and limited authority of the reporters described above. Another obstacle is the already-stated absence of a planning framework from CUNY central staff, a natural condition resulting from the accepted philosophy of preserving campus autonomy. This problem may be solved for future five year plans by the newly increased activities of the CUNY Master Plan office. Finally, and perhaps of most importance, is the genuine confusion about the questionnaire itself, and the lack of understanding of the terms goal, mission, needs, objectives, activities.

Since the non-CUNY institutions are more single-mission-oriented, and must satisfy different types of pressures, their information, while specific, was within the framework of a general planning context. Questionnaires sent to them had been revised, and they were encouraged to submit portions of reports (and several did) that had been developed for other one-and five-year State plans.

Missions and Goals

The materials prepared by the CUNY Colleges in the late Spring 1976 reflect career education hopes based on an assumption of normal, albeit tight resources. More radical cuts were not to take place until Summer 1976. These cuts affected faculty and support services throughout each college. Since the two CUNY units and the Academy of Aeronautics have a focused mission, they are able to plan their future activities wiht some precision. The proprietary schools, by their very definition, must always keep in the forefront their two clients: students and the job market (employers).

All of the institutions detail their "missions and goals" in language that can easily fit the broader concept of career education discussed above. Some excerpts may be illustrative.

- "To aid students...in achieving intellectual development and academic success so that they can become informed, responsible and productive citizens...to continue their education in a senior institution..."

- "To obtain employment with potential for advancement."

- "...To provide a specialized and up-to-date post-secondary education for students planning to enter the career field. Offerings are... sufficiently specialized so that a graduating student can either... enter his chosen field,...or sufficiently broad based...to continue his/her education."

- "Provide post-secondary occupational education students with programs and services which enable them upon completion to obtain exployment in a field related to their education, or continue their education at an advanced level."

- "Training students intelligently and thoroughly so that they will have a sound introduction into the business world and the ability to realize its greatest opportunities."

- "Affirming that individual growth is the primary goal of a sound educational program, and that...has a particular mission of service to the..industries, the college works...to prepare men and women for professional careers...to develop in students creative individual thinking based on reasoning..."

- "The mission of...is to provide career education programs in the technical areas of the...industries. Curricula, faculty, and facilities are organized to provide the experiences peculiar to the...technologies, and include the necessary general studies for a satisfying life in a changing social structure."

- "Our mission is marvelously simple: to prepare people accurately for known job opportunities in the...industry."

The language in all of these materials reflects what has always been, and probably what is thought to sound appropriate.

Needs Assessment

Again, correcting for the varied understandings of "needs" (student interest, community needs, job market realities), the information supplied varies by type of institution. The non-CUNY colleges are specific, in harmony with their focused missions. They appear to be more ready, willing, and able to link curricula with job markets and students. They provide more information on student placement. However, their student bodies are limited and select. See Table A.

Again, excerpts may be illustrative.

- "Career counseling during the period student is in the...program. Direct contact with prospective employers before graduation...Development of continuing education program...early morning, evening, and weekend classes. Placement statistics show that approximately 93% of 234 in 1975 classes are employed in a position directly involving the use of skills developed at...School."

- "...with the increased technology in the field and the demand for more efficient care, there has been an increased demand for these trained people."

TABLE A

ENROLLMENTS

	Actual Fall 1975		Projected Fall 1976	
	In Career Programs	In Transfer Programs	In Career Programs	In Transfer Programs
*CUNY - Total	36,069	32,517	32,207	27,570
C1. Borough of Manhattan	3,974	4,287	3,424	3,861
C2. Bronx	6,030	5,217	5,192	4,423
C3. Hostos	933	1,703	877	1,558
C4. Kingsborough	3,528	5,213	3,239	4,474
C5. LaGuardia	2,281	1,907	2,491	1,731
C6. New York City	9,803	2,662	8,191	1,921
C7. Queensborough	5,546	5,748	5,098	4,705
C8. Staten Island	3,974	5,780	3,695	4,897
C9. Medgar Evers	Did not distinguish 2 yr. programs		Insufficient data to project enrollment	
SUNY				
S1. Fashion Inst. of Technology	4,142		4,010	
S2. College of Optometry	10	140	16	140
P1. Academy of Aeronautics	1,108	-	1,108	-
P2. Collegiate Institute, Inc.	167	-	167	
P3. The Interboro Insitute				
P4. Laboratory Institute of Merchandising	200-210	-	200-210	-
P5. Technical Careers Institute				
P6. The Wood School	32	Less than degree 350	Capacity of 400	

* 1975 enrollment figures from CUNY Data Book.
1976 enrollment projections from CUNY Office of the Master Plan. Factored into the projection are such items as the effects of tuition; student "show", attrition, and transfer rates in past years; higher senior college admissions criteria; greater interest in career programs; and others. The figures include "transition" students. Final 1976 figures based on official enrollment in October will be available in November.

- "...Each year we graduate about 100 students and 80-90% are placed by graduation in management entry level positions...remaining 10% are ultimately placed...career advancement and satisfaction is high among our graduates. Industry holds our graduates in high esteem because they make a vital contribution to the smooth functioning of their employer's firms."

- "...Acquisition of appropriate Federal ratings is a primary objective and each curriculum is based on qualifications needed...The (school) maintains liaison with both current industry problems and anticipated changes."

Unlike the other institutions, the CUNY colleges have a wide range of programs, many more and highly diverse students. The colleges collectively have over 40 career programs. Individual schools have programs ranging in number from 7 to 30 (Table B). Enrollment in the 8 community colleges for 1975 was approximately 69,000. Of this total student enrollment, 52% was in career programs. Projections made for Fall 1976 indicate that enrollemnt in the community colleges will not go down as much as in the senior colleges. The tight economy encourages career-oriented students to opt for community rather than senior colleges, and for career (53% projected for 1976) rather than transfer programs. It is also probable that it will become more difficult to transfer to the senior colleges, and therefore, students will opt for complete community college programs.

Table C illustrates the numbers and varieties of graduates from CUNY career education programs. It is interesting to note that of the total degrees granted from July 1, 1974 to June 30, 1975, 67% were in career programs with 32% in transfer programs. Of the 6,554 or 67% in career programs, 44% opted for the business and commerce technologies; 32% for health services and paramedical technologies; 13% for public and community related programs; and 10% for mechanical and engineering technologies.

With such a broad educational mandate, and during a period of fiscal crisis, it will be increasingly difficult for the CUNY colleges to meet the needs they have outlined in the materials that were submitted.

Following are some excerpts.

- "By considering the academic potentialities and employment preferences of its student population, the breadth of career programs offered elsewhere, and correlating these with changing and projected job opportunities in metropolitan New York,...hopes to improve and expand the scope of its career programs."

- "The past history of the college shows that employment opportunities for graduates of the career programs have been consistently high."

- "Before implementation, careful analysis is completed of prospective student interest in a specific program and labor market demand for graduate program development."

TABLE 8

ACTUAL ENROLLMENT IN TRANSFER AND CAREER PROGRAMS OF COMMUNITY COLLEGES BY CURRICULUM--FALL 1975

Source: CUNY Data Book 1975-76

Matriculated for A.A.-A.S. Degree: (except where indicated)	Borough of Manhattan	Bronx	Hostos	Kingsborough	LaGuardia	New York City	Queensborough	Staten Island	Total
TRANSFER PROGRAMS									
Bilingual					187				187
Business & Bus. Admin.		820			483				1,303
Business (A.A.S. Transfer)	818			772	129		716	707	3,142
Civil & Public Service			14						14
Computer Science				116					116
Education Assistant/Associate	162								162
Engineering Science & Pre-Engineering		311					202	181	694
Environmental Health							86		86
Government Administration	13								13
Liberal Arts & Science (AA-AS)[a]	2,720	3,707	1,689	4,325	1,006	2,420	4,744	4,619	25,230
Library Technology	32								32
Occupational Therapy					102				102
Performing Arts--Music	3	117							120
Physical Education	34								34
Pre-Pharmacy		175							175
Recreation Leadership (A.A.)	86								86
Science Lab. Technology								273	273
Social Service	366					242			608
Teaching Business Subjects		87							87
Urban Planning	53								53
Total Enrollment in Transfer Programs	4,287	5,217	1,703	5,213	1,907	2,662	5,748	5,780	32,517

TABLE B (Cont'd.)

Matriculated for A.A.S Degree **CAREER PROGRAMS**									
Accounting	850	648	165	721	444	860	741		4,429
Advertising	20								20
Architectural Technology						204			204
Automotive Technology						313			313
Banking	64								64
Business	283			7				1,146	1,436
Chemical Technology		44				211			255
Child Care		214	174	160	260	475		234	1,517
Civil & Public Admin.				24					24
Civil Technology						103		160	263
Commercial Art						415			415
Construction Technology						328			328
Data Processing--Computer Tech.	559	442		273	367	384	349	144	2,518
Dental Hygiene			45			179			224
Dental Lab. Technology						185			185
Design Drafting Technology						189	266		455
Education Associate		410		170	199	272		42	1,093
Electrical Tech.: Computer							302		302
Electrical		555				884	606	340	2,385
Electrical Mech. Technology						241		96	337
Environmental Science						246			246
Fire Science						193			193
Graphic Arts--Advert. Tech.						295			295
Health Management					22				22
Hotel Technology						368			368
Industrial Arts						234			234
Industrial Production Mgt.						7			7
Lithograph Offset						128			128

TABLE 8 (Cont'd.)

Machine Tool Technology						98			98
Management							658		658
Management Engineering Tech								285	285
Marketing	79	147				575			801
Mechanical Technology		134				173	278	123	708
Medical Emergency Tech.	9								9
Medical Laboratory Tech.		766	111			476	375	289	2,017
Medical Records Technology	130								130
Mental Health Technology	143			140	313				596
Middle College[b]					13				13
Nursing	681	1,599	243	423		536	1,207	1,115	5,804
Ophthalmic Dispensing						241			241
Plastics Technology		46							46
Recreation Leadership				231					231
Respiratory Therapy - Technician	177								177
Retail Business Mgt.				262					262
Secretarial Science	979	985	111	1,117	663	840	764		5,459
X-Ray Technology			84			150			234
Total Enrollment in Career Programs	3,974	6,030	933	3,528	2,281	9,803	5,546	3,974	36,069
Unclassified Curriculum		255			153				408
TOTAL ENROLLMENT IN CAREER & TRANSFER PROGRAMS	8,261	11,502	2,636	8,741	4,341	12,465	11,294	9,754	68,994

a) Includes Liberal Arts Comprehensive (A.A., A.A.S., A.S.)
b) Middle College is an alternate academic high school program in which students receive their high school diplomas in 3 years, and their Associate Degree in 2 years.

TABLE C

CUNY Community Colleges Associate Degrees Granted - By Curriculum
July 1, 1974 - June 30, 1975

1. Business and Commerce Technologies		2,910
Business includes administration, career, real estate, transportation, banking, advertising	892	
Accounting	593	
Secretarial Science	545	
Data processing and computer science	251	
Marketing and Sales	245	
Hotel Technology	105	
All others	279	
2. Health Services and Para-Medical Technologies		2,075
Nursing	1,431	
Medical Laboratory Technology	267	
All others	377	
3. Mechanical and Engineering Technologies		664
Electrical Technology(electric and computer)	233	
Mechanical Technology	72	
All others	359	
4. Public and Community Related Technologies		905
Education Associate and Assistant	352	
Child Care	253	
Social Service	85	
All others	215	
Total Career Programs		6,554
5. Transfer Programs		3,099
Total Degrees Granted		9,653

Source: CUNY Data Book

- "The uncertainty of job forecasts in the nursing area, as evidenced by increasing empty hospital beds, demand greater opportuntiies... The college has responded...with its counseling and placement services, tries to move students in the most profitable directions."

- "All business programs are supported by the department of cooperative education and students are required to complete internships in their majors as part of their degree requirements. All offerings are continually reviewed in terms of job market realities and are adjusted accordingly.

- "The...department temporarily interrupted the offering of the... curriculum because of the lack of job openings in the area."

Specific Projects

The details of the specific programs being proposed by all the institutions surveyed can be found in Appendix G. The materials submitted were summarized in Appendix G to provide uniform descriptions, and thereby a total scope of institutional activity.

At the close of this section there begins a series of summary charts. They are organized by career clusters: (1) Business and Commerce Technologies; (2) Commercial Arts Technologies; (3) Health Services and Para Medical Technologies; (4) Mechanical and Engineering Technologies; (5) Public and Community Related Technologies. In each area, the charts indicate which colleges have proposed to undertake some sort of activity under the headings of: new programs; update/revise programs; basic skills/supportive services; counseling-job placement; faculty/staff development; articulation with secondary schools; services to the handicapped.

Briefly, in the Business and Commerce Technologies career cluster, it appears that every college is trying to duplicate the new programs of every other, particularly in their secretarial science programs. All schools seem to want learning resource centers, word-processing and related skills programs. A number are expanding their medical secretary programs. The emphasis in basic skills is on a bilingual component for the secretarial student. Either English is added to Spanish, i.e. Hostos; or Spanish is added to English, i.e., Borough of Manhattan, Kingsborough, and Queensborough. The non-CUNY colleges, taking some notice of the basic skills problems of disadvantaged students, are FIT, the Wood School, and Collegiate Institute.

For the activities of counseling and job placement, for business and secretarial students, several CUNY colleges proposed using their cooperative education programs: Borough of Manhattan, Queensborough, and Medgar Evers. Only Bronx discussed "widening job horizons of students." The non-CUNY institutions consider job placement a very important area of activity and all note their specific successful programs.

No activity under the heading of "faculty and staff development" is listed for this cluster or any other career cluster.

While several articulated programs in business between New York City high schools and CUNY colleges are underway and successful, only two CUNY colleges, Borough of Manhattan and Kingsborough, vaguely nod to future articulation activities with secondary schools by stating they will "identify an appropriate area" and pursue a program. The Wood School wants to expand articulation with two and four year colleges, so that their students can secure additional liberal arts courses for their AAS degrees and eventually earn bachelors degrees.

Only one college, Queensborough, has an active program for the handicapped in this cluster area. Staten Island stated they were exploring a similar program.

Three institutions, Bronx, Staten Island, and New York City currently have approved programs in Commercial Arts Technologies. None indicated that they were planning any projects for this career cluster. Queensborough does not have an approved program in this area but it proposed two projects that would lead to certificate programs. These do not require as elaborate an approval procedure but they would become eligible for VEA funding. Kingsborough also proposed three new programs, all needing formal approval.

The most frequently listed need by the CUNY colleges for the career cluster of Health Services and Para-Medical Technologies seems to be better laboratory and clinical experiences for all programs, especially nursing. One reason for the poor job potential for two-year nursing graduates which was cited above, is the paucity of bedside or hands-on experience in the curriculum. Since the hospitals have fewer jobs available, and large numbers of three and four year nursing programs graduates are competing for them, they do not need to undertake the expense of supplying two year graduates with on-the-job training. The answer to this dilemma may be to examine the feasibility of the two year nursing program itself (which often takes students 3-4 years to complete, because of their deficiencies) rather than to simulate hospital rooms on the campus. There is an indication that there is central CUNY concern about this problem. Borough of Manhattan, Bronx, and Kingsborough, looking for a solution to this problem, mention several career programs to serve as alternatives to nursing. All colleges with nursing programs are planning continuing education programs for persons in-service, and refresher programs for those wanting to reenter the job market.

Beyond those CUNY colleges with cooperative education programs in the health career cluster, only Staten Island specifically noted placement as an activity to be undertaken. New York City was concerned about identifying new job areas and subsequent placement for students in radiologic technology. Job placement is a very important activity at the College of Optometry.

Of all the colleges, (CUNY and non-CUNY), that offer programs in Mechanical and Engineering Technologies, only the Academy of Aeronautics discusses the full range of activities necessary for a complete career education program. The CUNY colleges may offer some of the supporting services, counseling, placement, etc., but as stated before, the system of collecting data would not elicit this information.

Only a few of the colleges offer career programs in the Public and Community Relations Technologies. Of those few, only Kingsborough noted any significant activity. Several of the colleges do offer transfer programs. Since this is one of the areas where the indicators show future job potential, it may be perspicacious to convert the transfer courses to two-year career degree and/or one-year certificate programs.

Finally, several of the CUNY colleges discussed at some length activities that they plan to undertake which are not related to a specific career cluster. The Borough of Manhattan emphasizes its cooperative education program and Employers Data Bank system as the vehicle for job placement, career guidance and counseling. As Medgar Evers moves into the development of two year career programs, it plans to make co-op education a component of all disciplines.

Both Kingsborough and Staten Island are concerned with the new student populations: women, particularly those returning to school, minorities, veterans, persons in mid-career who want to update their skills or change career direction, and the handicapped. While these groups often fit into existing college programs and services, they also may require specially developed programs, i.e., English as-a-second language, different kinds of counseling and job placement, short term institutes, revised curricula with special scheduling, weekend colleges, and others.

New York City expressed the greatest interest in developing a wide variety of articulation programs between their technical programs and similar secondary programs. One such program is already in operation.

Appendices H, I, and J which summarize by career cluster the data listed by college in Appendix G, illustrate the activities which the institutions plan to undertake in the next year, and those which they do not.

Continuing Education Programs

All of the CUNY institutions except Kingsborough (which offers occupational programs for credit only) and the non-CUNY schools, offer occupational courses as part of their adult/continuing education programs. A few of these programs, where they constituted a major activity for the college, were listed in Appendix G and the summary charts.

Other programs, which are ongoing, take a variety of forms. They may be indistinguishable from regular courses and programs. Many are off campus, offered as a career package, or just available at a particular location. Others are shortened into modules and offered as mini-courses. Some are tailored to a particular occupational group or as refresher or re-entry programs.

Many of the colleges indicate that they were responding to their community needs, i.e., Hostos offering refresher courses in Spanish, Staten Island concerned about mature women returning to the job market.

Normally, continuing education depends upon tuition or grants for funding, lending uncertainty at all times as to whether or not a particular course will, in fact, be offered. These uncertainties will increase because of the CUNY crisis. Cutbacks in the use of adjunct faculty and elimination of regular continuing education staff members are factors. Tuition for regular students may also be a factor in many families.

A more detailed analysis at this time, when so many critical factors remain unknown, would be unproductive.

Conclusions

As has already been noted in the introduction to this section, the incorporation of a post-secondary career education segment into a regional plan for the City of New York represents a challenge of considerable magnitude.

The challenge is heightened considerably by the precedent-breaking decisions forced upon the City University community as a result of the budget crisis. The immediate effect, the institution of tuition after more than one hundred years, represents only one of the major changes imposed by the crisis.

Equally, if not even more important is the pressure which has been created for central policy-making and planning. The autonomy and independence exercised by each of the senior and community colleges, as applied to program planning, for example, must inevitably give way to a more global view of the institutions' needs and activities.

This provides a potentially more productive basis for master-planning. A preliminary review of the just-issued Master Plan, prepared by the Board of Higher Education, suggests that more serious attention to planning is the wave of the future.

With a central CUNY mechanism, committed to a Master Plan for all institutions within its jurisdiction, the capability of articulated regional planning is indeed enhanced.

Recommendations

1. Regional planning must move forward quickly. Answers to the following questions should be determined on a regional basis:

   1. What will be the student population in 1981: numbers; characteristics (regular, disadvantaged, adult, handicapped); ability levels (reading, writing, math, English, verbal communication)?

   2. What will be the labor market in 1981: will program curricula change with job requirements; can obsolete programs be closed out expeditiously; can new programs be initiated quickly?

   3. What will be the role of support services viv-a-vis substantive curricula: recruiting and orientation; testing and remedial evalvation; basic skills programs and tutoring; counseling and guidance; job development and placement?

   4. Will it be more economical to centralize at either the CUNY Board of Higher Education, or at one of the other institutions, or to keep decentralized, the following: gathering of student data; job market

research; curriculum revision; program relocation; remedial program development; audio-visual material development; staff training?

5. What is being planned to accommodate the special student population - (women, minorities, handicapped, mid-career adults)? It should be remembered that these may be the students who will sustain the enrollment level as the 18-22 age group declines.

Gathering data and answering these elementary questions by the institutions, however, is only the beginning of a regional solution to career education planning.

A key element within the regional planning framework suggested in recommendation one, is the system of CUNY community colleges. As noted, this is a very unsettled period in CUNY's history and they need time. The final effects of the financial crisis on either the individual campuses or the central staff is not yet known. There is a new Board of Higher Education whose philosophy is yet untried. Both the City and the State have appointed commissions which have a year to recommend a future organizational structure for CUNY. Also, the central CUNY planning office needs time to complete its data gathering. Changes in key staff at the Board will also contribute to the uncertainties.

2. Despite all these uncertainties, it is recommended that CUNY review its career education priorities. Hard decisions are being made regarding several career programs that either prepare students for jobs that no longer exist, or require expensive equipment which is duplicated on too many campuses. It is to be hoped that these decisions can be implemented even in the face of campus autonomy and turmoil caused by cutting departments.

An equally important priority to be reviewed by CUNY is the primacy of teaching in the community college career education program. The outcome will determine whether career education students will have the level of supportive services, counseling, and job placement that is being proposed here as an integral part of a comprehensive career education program. If CUNY decides to abandon this policy, then provision should be made to have these services provided elsewhere.

3. One avenue for the exchange of particular expertise in the components of career education as well as the most efficient use of educational resources and student time, is an expanded program of articulation. A third recommendation is to plan and undertake additional programs of articulation, between secondary and post-secondary institutions, and among the public, private, and proprietary institutions in the post-secondary sector.

Several problems connected with expanding articulation between secondary and post-secondary institutions have surfaced in conversation with CUNY personnel. Problems include disinterest by CUNY colleges, (particularly since student recruitment was not necessary); the feeling of the high schools that their better students were "creamed off," leaving them with poorer students in lopsided classes; irregular attendance of remaining students cuts FTE reimbursements; the possibility that some high school programs are superior to post-secondary programs, thus leaving students short-changed.

A future problem for both the high schools and CUNY is that many of the personnel essential to planning and implementing these programs are either staff persons who have been eliminated or faculty who have been assigned additional courses to teach.

A decision to undertake additional articulation of programs should be followed by meetings to find positive avenues of action, leaving the negative reasons behind. It should be remembered, too, that in a time of limited funds, reordering of priorities will require a corresponding reallocation of funds.

From materials submitted by the post-secondary institutions, there was indication that the proprietary schools would like to cooperate with the community colleges for some programs. In order to offer stronger two-year degrees that would permit graduates to move on to four-year degrees, it is necessary for the proprietary schools to strengthen their liberal arts or general education component. At the same time, as noted, the CUNY colleges are eliminating certain supportive services in which the private/proprietary schools are quite strong. If responsibility and integrity of program can be maintained, a fruitful exchange may be possible.

Articulation with allied senior college programs so that students can continue up a "career ladder" is stated as a goal by public, private and proprietary institutions. Such a goal would certainly be reached more quickly and economically within the framework of regional planning.

4. The first three recommendations are for actions that must be taken within the New York City region. An important potential influence on regional planning is VEA funding. A fourth recommendation is that VEA support this regional comprehensive career education planning and programs by refocusing its grant money allocations.

While it is true that VEA staff essentially can fund only those projects which are proposed, the current perception on the campuses, valid or not, is that mostly curricula-related projects will be funded. This encourages colleges to submit curricula-related programs. The campuses also look for trends in funding, and programs tend to be duplicated from campus to campus. This cycle must be broken if the goals cited above are to be achieved. If VEA staff do agree that all the components of career education are equally important and that regional planning which gives appropriate attention to the job market is important, then VEA dollars should be used to fund only those projects which conform. VEA funds could also be helpful as seed money to encourage implementation of the first three recommendations.

Finally, yearly updating of this plan and development of future five-year plans would be more easily accomplished if all the "master planning" at the state level could be coordinated. Reorganizing the same data to satisfy different questionnaires has become a burdensome task and as staffing becomes tighter and tighter, institutional research capability will cease to exist.

SECTION 10

EXPANDING TRAINING OPPORTUNITY FOR HANDICAPPED PERSONS

Expanding Training Opportunity for Handicapped Persons

The past several years have seen a deepening commitment to handicapped students in New York City, and across the nation. The growing recognition of the rights of the handicapped has led to the expansion of the scope and types of special education programming, emphasizing for the older student, the need for early and appropriate vocational skills training and job placement. Career Education for handicapped students has become a high priority goal of the Division of Special Education and Pupil Personnel Services of the New York City Board of Education.

In 1975-76, the Division served 45,000 students, 8000 of them adolescents. These students attend special programs located in elementary, intermediate, junior and senior high schools, as well as special schools and institutions throughout the five boroughs. See Table XIV.

Vocational programs for these students had traditionally been limited to pre-vocational exposure in industrial area shops and programs. The past several years have seen a major shift in the direction of skilled vocational training for the handicapped students with an emphasis on trade and technical skills programs, commercial skills, and health careers training. The focus has shifted from pre-vocational exploration to job preparation and training, and to job placement.

VEA funds have been utilized to provide a placement service for handicapped graduates and dropouts. Buoyed by changing public attitudes and Affirmative Action legislation for the handicapped, hundreds of handicapped adolescents and young adults have been placed in the competitive labor market. A pilot program undertaken this past year, placed high school handicapped students in work-study situations. This successful effort will be expanded in 1976-77, extending work training through on-the-job experience for 300 special education high school students.

For a number of years the Special Education Division has eagerly sought to open the doors to Vocational Education training opportunity for handicapped students. While Vocational Education traditionalists have in the past been less than eager to receive the handicapped, the gradual opening of new programs and sites is changing that picture. In 1975-76, three vocational high schools initiated full time programs for handicapped students; another three vocational high schools will open programs in September, 1976 bringing the total to 12 of the City's 23 vocational schools serving the handicapped.

As handicapped students demonstrate their interest, motivation, their ability to perform, and their safety consciousness, old barriers are beginning to break down.

Increased involvement of the Advisory Council for Occupational Education has provided considerable impetus to the development of programs.

The Division of Special Education and Pupil Personnel Services has received substantial support from Advisory Commission Member employers and labor unions. These Commissions have paved the way for many handicapped students to enter vocational training programs, and have provided an additional source of job opportunities as well.

The provision of vocational training services to the severely/and multiply handicapped is another aspect of the expansion of the range of alternatives in career education available to the handicapped. Funded programs have been initiated to serve severely/multiply handicapped students to prepare them for sheltered employment; severely psychiatrically impaired adolescents are being trained in clerical skills and horticulture. These populations were previously unserved. Plans are under way (1976-77), to provide an introduction to work activities for severely autistic adolescents with tax levy funding support.

Skills training programs for handicapped secondary students are being developed in many high school settings throughout the city. New VEA funded programs for 1976-77 will provide skilled trades and clerical training to those handicapped students who need instruction in a Special Education setting. Continued mainstream training will be offered with the essential teaching and counseling services to support them.

Part-time shared instruction and after school programs are providing additional vocational training alternatives to students whose full-time day time program lacks a vocational focus. Programs in 16 sites in 1975-76 provided such skills, three sites offered driver education to severely physically handicapped students who need to drive as a basic requirement to get to and from work.

Adult programs continue to focus on job placement, with skills training for adults an important program goal. An innovative and successful evening program to upgrade the work skills of retarded adults was begun in the past school year and will be continued. Other programs with a similar thrust are awaiting future funding.

The goals of the Division for the next five years emphasize the expansion of career programs and alternatives for all segments of the Special Education population with increased activities to meet the diversified wide range of needs.

High priority will be placed upon the following activities, related to these goals.

1. Provide work skills training for every secondary-aged handicapped student who can benefit from such training, either in the mainstream or in a special program.

2. Expand alternatives such as paid on-the-job training; part-time skills training and volunteer work experiences.

3. Expand and diversify career awareness and life skills programs to elementary, intermediate and junior high school students.

4. Extend services to the young adult handicapped population to provide them with the skills and support services necessary for the transition to a post-school adult productive existence.

Overall responsibility for planning and development will be assigned in 1976-77 to a newly created unit for Career and Occupational Education within the Division: This unit will provide comprehensive planning for the DSEPPS and seek support from tax levy as well as other funding sources, including the private sector.

TABLE XIV

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
Physically Handicapped (including Brain Injured Children)			
1. Skilled Health Occupations	450	150	
Health Occupations			Francis Lewis H.S. John F. Kennedy H.S.
Clerical Occupation			Flushing H.S.
Dental Mechanics			Hillcrest H.S.
Jewelry			Westinghouse H.S.
Watch Repair			"
Optical Mechanics			"
Automotive Mechanic			Thos. Edison H.S.
Carpentry			Edison H.S.
Building Maintenance			Edison H.S.
(shared instructional			Queens H.S.
program evening H.S.course)			NYABIC
2. Semi Skilled Multi Occupational	275	250	Adlai E. Stevenson H.S. Career Development H.S. Tilden H.S.
3. Pre-Vocational	475	0	General Industries Labs
Mentally Retarded			
The Occupational Training Center (one in each of the 5 boroughs) provides vocational training for 17-21 year old retardates.	1366		5 plus annex
The training and skills development are offered in the following areas:			
travel and messenger service	74		
general industrial shop	351		
building maintenance	127		
publication	158		
home and family living	69		
office practice	80		
garment trades	122		
food preparation and service	128		

* Included in Total

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
Mentally Retarded - Continued			
nursing hospital services			
ecology			
industrial ceramic			
work-study, on-the-job training			
pre-workshop (non stipend)			
stock room procedures			
jewelry and metal			
wood working			
Note: These shops are exploratory for first and second year students. Prior to on-the-job placement, the trainees major in at least 2 training areas.			
Retrieval and Redirection			
The following agencies provide training:	500		5 classes 5 agencies
BBCS F.E.G.S. Goodwill Industries United Cerebral Palsy BCRMD Total students employed - 26			
Training Areas			
assembly work sorting office machines shipping packing clerical assorted crafts sewing plastic crafts			
loading messenger service cafeteria machine shops			

* Included in Total

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
Mentally Retarded - Continued			
High School Work-Study			
179 Senior Students in the On-the-Job Training			
Maintenance			
Doorman -1			
Custodial -4			
Clerical -23			
Messenger -13	1175		30
Teacher-Aide -13			
Food Services -9			
Wrapping -6			
Frame maker -1			
Cashier -5			
Musician -1			
Stock -19			
Nurses Aide -3			
Gas Station attendant -1			
Factory Worker -4			
Sales -3			
Security -6			
Graduates 1975	235		
*October, 1975			

* Included in Total

TABLE XIV - Cont'd.

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
Socially-Maladjusted-Emotionally Disturbed			
Home economics	75	0	P.S. 138M, St.Joseph's Home
Industrial arts occupational training.	96	0	
Cosmetology & beauty culture	14	0	
Business education	60	0	
Home economics	66	0	P.S. 138M, Astor Home
Industrial arts	66	0	
Auto mechanics	14	0	P.S. 189X
Auto body and repair.	16		
Tailoring (men's)	14		
Men's barbering	14		
Shoe repair	15		
Baking	12		
Typing & business machines.	12		
General industries shop	40	0	P.S. 186X, Edenwald School
Industrial arts.	40	0	
Sewing	30	0	
Clerical practices	25	0	Hillside Annex
Home economics	25	0	
Clerical practices	20	0	Jacobi Annex
Clerical practices	40	0	Kennedy Home Annex
Ceramics shop	40	0	
Foods	25	0	
Industrial arts	40	0	
Sewing	25	0	
Clerical practices	25	0	New Direction Annex.
Sewing	60	0	P.S. 35 Children's Center
Ceramics	80	0	
Typing	15	0	
Industrial arts	20	0	Jennings Hall Annex
Photography	24	0	Plus XII Annex
Woodworking	24	0	
Typing & business practice.	24	0	

* Included in Total

TABLE XIV - Cont'd.

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
SMED - Continued			
Graphic arts ...	150	0	369K
Fine arts	150	0	
General crafts shop	150	0	
Ceramics	75	0	370K
Photography	10	0	
Woodworking	75	0	
Crafts	60	0	
Pet	165	0	
Typing	20	0	368K Kings County Hospital
Woodworking shop	112	0	P.S. 9Q
Ceramics	20	0	
Living science (pet,plant,aquarium)	112		
Photography	20		
Business machines	15		
Publications (printing)	15		
Woodworking	150	0	P.S.36K
General crafts (metal working)	150	0	
Special crafts (ceramics,candle making,terrariums,photography)	100	0	
Woodshop	68	0	P.S.176M Bedford Hills,N.Y.
Wood-metal shop	30	0	
Clothing and food Service	68	0	
Student work program(clerical,paraprofessional,secretarial)	34	0	P.S.8M
Distributive education(store skills)	100	0(was VEA)	
Photography	20	0	
Job orientation workshop	25	0	
Ceramics-graphics shop(advertising)	55	0	

* Included in Total

TABLE XIV - Cont'd.

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

	Enrollments October, 1975		
Occupational Cluster/Program	Total	VEA*	Facilities
SMED - Continued			
Automotive trades	32	0	P.S. 25R
Woodworking	22	0	
Custom tailoring	28	0	
Barbering trades	24	0	
Printing trades	30	0	
Bakery trades	25	0	
Food trades	28	0	
Landscape & gardening	27	27	
Industrial arts metal	51	0	
Industrial arts woodworking	57	0	Mount St.Michael Annex
Ceramics	47	0	
Office practice skills	44	44	
Cosmetology	42	42	
Tractor trailer all purpose shop.	17	0	Seaside Annex.
Woodworking	200	0	P.S. 12X
Ceramics	175	0	
Metal	150	0	
General crafts	175	0	
Woodworking 3 shops	15 per shop	0	P.S.188 Spofford Juvenile Cente
Arts & Crafts	10	0	
Typing	8	0	
Business practices	8	0	
Woodworking	80	0	P.S. 75Q
Ceramics	80	0	
General crafts	80	0	
Unskilled			
1. Vocational evaluation and job placement	50	0	1. B.H.H.C. Work Study Program 415 E. 88th St. NYC
Pre-Vocational			
1. Orientation and exploration	200	0	1. J.H.S.47 - School for the Deaf P.158 - S.L.M.I.C. S.L.H.I.C. East 88th St.

* Included in Total

TABLE XIV - Cont'd.

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
Training and Job Placement			
Vocational Evaluation & Job Placement for Hearing Handicapped (Adult)	125	125	2. B.H.H.C. Work Study Program 415 East 88th St.
Skilled Trades			
1. printing	11		1. N.Y.School of Printing
2. upholstery, cabinet making, trade dressmaking, business education, cosmotology, small appliance repair	22		2. Eli Whitney Vocational H.S.
3. jewelry making, optical mechanics, dental mechanics, clock and watch repair, woodworking, electrical installation	96		3. George Westinghouse Vocational & Technical H.S.
4. auto mechanics	15 5		4. Automotive H.S. in conjunction with SLHIC John F.Kennedy H.S.
5. Health careers, food service, animal care, furniture repair	30		1. Shared-instructional facilities in conjunction with SLHIC at the following sites: a. Fashion Trades H.S. b. Food and Maritime H.S. c. N.Y.Eye & Ear Hospital d. Elmhurst General Hospital e. A.S.P.C.A. f. Beth Israel Hospital
Vocational Program			
1. Skilled (Carpentry, Electrical Dental Mechanics, etc.)	5	5	Westinghouse
Pre-vocational - (Building maintenance, food trades, sewing)	10-12	10-12	O.T.C. Brooklyn

* Included in Total

TABLE XIV - Cont'd.

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	 VEA*	Facilities
Forty students are currently being served annually in the Occupational Skills Training program at the Manhattan CMHC. Forty additional students will be enrolled in the program at the Queens CMHC, established in September, 1975 as soon as a teacher and para-professional are made available for the program. Equipment and materials for the program are currently stored at the Queens CMHC.	CMHC-Manhattan 82	40	CMHC (Manhattan) 105 East 106th St. New York, N.Y. 10029
	CMHC-Queens 55	40 will be eligible	CMHC - Queens P.S. 187 Little Neck
	As of 10/27/75, 24 additional students were ready for admission to CMHC-Manhattan and 32 students are ready for admission to CMHC, Queens. (During the 1975-76 school year additional students are expected to be admitted to both centers from PL 4404 sources.)		
Secondary: City-Wide Integration of the Handicapped in Vocational Training	300 (Part time) 250 (Full time)	300 120	George Westinghouse H.S. N.Y. School of Printing McKee Vocational H.S. Automotive H.S. Food Trades H.S. School for Language & Hearin Impaired South Shore H.S. Grover Cleveland H.S. Francis Lewis H.S.

* Included in Total

TABLE XIV - Cont'd.

Occupational Enrollments of Handicapped Students
Secondary - Multi-Level
1975-1976

Occupational Cluster/Program	Enrollments October, 1975 Total	VEA*	Facilities
Multi Level DSEPPS Center for Special Education Program	all handicapped		131 Livingston St.
Adult: Placement & Referral Center	1000	1000	131 Livingston St.

* Included in Total

TABLE XIV - Cont'd.

Handicapped Students in Full-Time Vocational High School Programs

School	Trade Area	Type of Program	Disability	Numbe
NY School of Printing (M)	Printing	Special shop + mainstream + resource room	Emotionally Hand. Brain Injured Hearing Handicapped	2 1 1
Fashion Industries (M)	All fashion trades	mainstream + resource room	Emotionally Hand.	2
Westinghouse (K)	Optical, jewelry, clock & watch, electrical, dental, wood	mainstream + resource room	Brain Injured Physically Handicapped Vision, Hearing Emotionally Handicapped Mentally Retarded	9
Whitney (K)	Upholstry, radio-tv, business ed.	mainstream + resource room	Hearing Handicapped	22
E. NY Voc. NY (K)	Radio-tv, wood, electrical, aviation	mainstream + resource room	Emotionally Hand.	2
Bklyn. Automotive (K)	Auto	Special shop + resource room	Language Impaired	1
Queens Voc. H. S. (Q)	Plumbing, cosmetology, building maintance	mainstream + resource room	brain Injured	12
Thomas Edison H. S. (Q)	Auto, electrical, building maintenance	mainstream + resource room	Brain Injured	2
McKee Voc. H.S. (R)	sheet metal, wood, electrical	mainstream + resource room	Brain Injured	14

SECTION 11

ELIMINATING SEX DISCRIMINATION IN OCCUPATIONAL EDUCATION (COMPLIANCE WITH TITLE IX)

ELIMINATING SEX DISCRIMINATION IN OCCUPATIONAL EDUCATION
(COMPLIANCE WITH TITLE IX)

In its efforts to achieve greater equity and parity of vocational education opportunity for students in the New York City school system, the Center for Career/Occupational Education has developed six main objectives to guide its activities. A self-evaluation process has also been developed to assess achievements. The self-evaluation process requires ongoing measurement of accomplishments, and remedial strategies, where indicated.

The six major objectives which conform to the regulations under Title IX are:

1) Publicize and disseminate to staff and schools, requirements for compliance with Title IX.

2) Develop new curriculum materials or recommend bias-free commercial materials to staff and schools.

3) Conduct staff development activities regarding sex stereotyping.

4) Encourage and recruit students for courses traditionally limited to one sex.

5) Influence business and industry (through Advisory Commissions, etc.) to observe bias-free hiring practices.

6) Develop strategies to influence school administrators to offer bias-free access to courses to boys/girls.

Data in the following enrollment charts provide a comparison between enrollment (by sex) in occupational courses for the school years 1974 and 1975. Summary Table A presents the comparison for the Day High Schools. Comparisons in each of the separate discipline areas follow the Summary Table. The discipline units are:

Agriculture Unit
Trade and Technical Unit
Health Careers Unit
Industrial Arts Unit
Home Economics Unit

Business and Distributive Education Unit
Shared Instruction Program
After School Occupational Skills Program
Manpower Development Training Program (Adult)
Evening Trade Schools - Pre-Employment Program (Adult)

The data contained in Summary A reflect enrollment patterns in occupational programs in the New York City (Day) High Schools. While population shifts have occurred in the programs of the Vocational and Academic/Comprehensive High Schools, it is interesting to note that inroads into sex role stereotyping is most significant in the two non-traditional programs, After School Occupational Skills Program and Shared Instruction Program. These programs, initiated in the early 1970's, promoted equality of training from the very outset.

If we compare vocational high school enrollments in non-traditional courses in the year 1971 with 1975, we can detect a steady, albeit small change in the mix. While growth in enrollments was limited, the number of trades in which the sex barrier had been broken was indeed considerable. The following trades demonstrate the extent of the breakthrough: Automotive Trades, Aviation Trades, Cabinet Making, Woodworking, Computer Tech/Program Lab, Dental Lab Processing, Equipment Repair, Electrical Installation and Practices, Radio and TV Mechanics, Maritime Trades, Mechanical Drawing, Printing Trades, Technical Courses, Meat Merchandising, Jewelry Design and Manufacturing, Health Careers Foundations, Practical Nursing.

Within its responsibilities and authority, the Center for Career/Occupationa Education has also taken the initiative in a number of related activities. In a letter addressed to the President of the Vocational High School Principals Association, in April 1975, the Chief Administrator of CCOE suggested a number of constructive activities which might be undertaken by that organization to encourage greater participation of boys and girls in non-traditional training in the vocational high schools. A resolution reflecting these suggestions was adopted by the Association on May 6, 1975. Notable progress in equalizing training opportunity has been achieved at Eli Whitney Vocational High Schoool, where both boys and girls are programmed for the full-range of multi-vocational exploratory courses from which a specialization may be selected. Non-discriminatory programming was instituted three years ago at Eli Whitney Vocational High School. These pioneering efforts resulted in the admission to membership of a June 1976 graduate to the Upholsterer's Union, the first female ever admitted to an apprenticeship in this union.

In testimony before the New York City Civil Rights Commission relating to discriminations in job training and placement based on sex, Mr. Quarles stressed the need for industry and union/commitment to the breaking down of sex barriers. Without bias-free job placement, non-discriminatory training can be futile.

Acknowledging the responsibility of the business community enforcing non-discriminatory practices, the Advisory Council on Occupational Education has agreed to develop an action program and a self-evaluation process to measure accomplishments.

While legislative mandate can help to pry open doors of training opportunity, only the commitment of the schools, the community, business and industry, can effectively fulfill the intent of the legislation. The slowness with which this transition is made is indicative of the tenacity of traditional values and sex-role stereotypes. The schools working with students, staff, and industry can serve as catalysts in effecting change. Indeed, each of the units reporting has been charged with this responsibility and is committed to a self-evaluation of accomplishments as they relate to the six major objectives.

Changing Enrollments in Occupational Courses in the New York City High Schools

Course	Day H.S. 10/74		Day H.S. 10/75		ASOP 10/75		SIP 10/75	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Gir
Automotive Trades	2,722	0	2,506	1	513	39	262	8
Aviation Trades	2,475	0	2,578	0	282	6	25	3
Bldg. Construction Trades	2,570	2	2,293	2	374	52	18	0
Computer Tech./Programming Lab (Technical)	71	0	56	0	101	49		
Dental Lab Processing	177	0	180	8	12	8		
Electro-Mechanical Trades	380	0	447	1	184	38	11	2
Elec. Instal. & Practice	2,716	1	2,698	2	78	3		
Food Trades	348	21	344	25	176	6	14	6
Machine & Metal Trades	704	5	728	5	159	2	27	6
Printing Trades (Graphics Comm.)	1,309	142	1,168	202	27	1	15	9
Dentists Office Assistant	2	296	5	255				
Practical Nursing	1	382	4	435				
Bio-Medical Lab Tech.	7	53	38	74				
Clerical & Typing	3,932	25,668	4,982	24,839				
Data Processing	887	704	1,065	1,351				
Animal Care	227	133	221	148				
Farm Prod. & Management	140	115	128	127				

NB: Although the columns for ASOP (After School Occupational Skills Programs) and SIP (Shared Instruction Program) show enrollments for 10/75 only, comparative figures on all ASOP and SIP courses, are given in the attached, detailed reports of these units.

ENROLLMENTS BY DISCIPLINARY UNIT

AGRICULTURE UNIT
ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Animal Care	369	221	148	410	277	133
2 Ornamental Hort.	618	371	247	460	299	161
3 Oceanography	89	49	40	-	-	-
4 Farm Prod. & Mgnt	255	128	127	255	140	115
5 Conservation	64	36	28	59	33	26
6						
7						
8						
9						
10						
11						
12						
13						
14						
15 Totals	1,395	805	590	1,184	749	435

ENROLLMENTS BY DISCIPLINARY UNIT

Business & Distributive Education
Secondary ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Pre-Vocational	4126	1887	2239	2503	1227	1276
2 Bookkeeping & Acct.	20960	9324	11636	20618	8689	11929
3 Data Processing	2416	1065	1351	1596	887	704
4 Clerical & Typing	29821	4982	24839	29600	3932	25668
5 Steno & Secretary	10103	437	9666	10363	792	9571
6 Supervision & Administrative Mgn.	87	52	35	85	49	36
7 Distributive Ed.	3949	2007	1942	5716	2819	2897
8						
9						
10						
11						
12						
13						
14						
15						

ENROLLMENTS BY DISCIPLINARY UNIT

HOME ECONOMICS
ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 H.S. H.E. Foods)		*	*		*	*
2 H.S. H.E. Clothing	39,500			43,450		
3 H.S. H.E. Child Care						
4 H.S. H.E. Occupational Foods	664			382		
5 H.S. H.E. Occupational Clothing	248			147		
6 H.S. H.E. Occupational Child Care	207			201		
7 I.S.J.H.S. H.E. Foods)						
8 I.S.J.H.S. H.E. Clothing	157,500			173,250		
9 I.S.J.H.S. H.E. Child Care						
10 I.S.J.H.S. H.E. Career Exploration	650			48		
11 Elementary H.E. Career Awareness	460			90		
12						
13						
14						
15						

*Statistics showing each sex have never been collected. Areas listed above are areas where statistics will be collected 1976-77. We know without counting that coeducational schools provide home economics to boys and girls.

ENROLLMENTS BY DISCIPLINARY UNIT

INDUSTRIAL ARTS ENROLLMENTS

	Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1	Elementary All Programs	124,000	62,000	62,000			
2	Intermediate/JHS All Programs	270,000	200,000	70,000			
3	Secondary- Metal, Wood, Elect/Electronics				Approximately the same		
4	Plastics, Graphic Arts Transportation, Plant						
5	Ecology, Aerospace, Marine Techology						
6		40,815	32,000	8,815			
7							
8							
9							
10							
11							
12							
13							
14							
15							

* Estimates given in place of records not kept according to boys/girls. Future enrollments will be recorded by sex.

ENROLLMENTS BY DISCIPLINARY UNIT

SHARED INSTRUCTION PROGRAM (SIP)
ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Automotive Trades	270	262	8	215	215	0
2 Aviation Trades	28	25	3	21	21	0
3 Climate Control	30	30	0	20	20	0
4 Commercial Art	28	23	5	16	14	2
5 Communications	24	15	9	2	1	1
6 Cosmetology	147	6	141	101	1	100
7 Distributive Educ.	254	94	160	125	60	65
8 Drafting	5	5	0	7	7	0
9 Electrical Trades	125	124	1	104	104	0
10 Electronics	79	71	8	95	95	0
11 Food Trades	20	14	6	5	4	1
12 Health Careers (DPL)	20	12	8	0	0	0
13 Metal Trades	33	27	6	16	16	0
14 Repair-Bus. Mach.	13	11	2	0	0	0
15 Woodworking	18	18	0	6	5	1*
16 Jewelry Making	3	0	3	1	1	0
17 Agriculture	16	5	11	22	14	8
18 Child Care	24	1	23	0	0	0

* Female student graduated 6/75 after completing three years sequence in Woodworking.

ENROLLMENTS BY DISCIPLINARY UNIT
AFTER SCHOOL OCCUPATIONAL SKILLS

ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Aviation Trades	288	282	6	234	234	0
2 Automotive Trades	552	513	39	572	545	27
3 Health	279	79	200	182	35	147
4 Business	1934	267	1667	1647	223	1424
5 Distributive Education	288	36	252	187	13	174
6 Foods	182	176	6	130	126	4
7 Cosmetology	335	9	326	276	6	270
8 Maritime	58	56	2	98	95	3
9 Dressmaking	138	19	119	54	5	49
10 Printing	28	27	1	27	26	1
11 Commercial Art	91	32	59	53	14	39
12 Commercial Photography	24	22	2	96	89	7
13 Radio and TV Repair	31	31	0	78	78	0
14 Electrical Installation & Practice	81	78	3	51	50	1
15 Electro-Mechanic	222	184	38	55	44	11
16. Mechanical Drawing	144	136	8	53	51	2
17. Machine Shop	161	159	2	192	192	0
18. Construction	123	122	1	51	49	2
19. Woodworking	303	252	51	312	266	46
20. Computer Programming	150	101	49	26	18	8
21. Animal Care	0	0	0	51	25	26
TOTALS	5,412	2,581	2,831	4,425	2,184	2,241

ENROLLMENTS BY DISCIPLINARY UNIT

PRE-EMPLOYMENT - EVENING TRADE SCHOOLS
ADULT ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Fashion Industries	2983	714	2269			
2 Food Trades	681	337	344			
3 Construction Trades	8701	8616	85			
4 Business	5435	1372	4063			
5 Printing	1001	976	25			
6 Automotive	388	372	16			
7 Aircraft Trades	193	193	0			
8 Health	35	21	14			
9 Building Mainten.	3145	3107	38			
10 Jewelry Trades	343	291	52			
11 Beauty Culture	189	47	142			
12 Radio & T.V. Repair	286	286	0			
13 Refrigeration	900	899	1			
14 Horticulture	29	7	22			
15 Trade & Industry Preparatory				7548		
16 Trade & Industry Supplementary				*27,474		

ENROLLMENTS BY DISCIPLINARY UNIT
MANPOWER DEVELOPMENT TRAINING PROGRAM
ADULT ENROLLMENTS - MEN & WOMEN

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Auto Mechanics	43	43	0	280	280	0
2 Elec. Appl. Service	41	40	1	48	45	3
3 Refrigeration Mech.	0	0	0	70	70	0
4 Off. Mach. Serv.	0	0	0	46	46	0
5 Bldg. Maint. Rep.	0	0	0	36	36	0
6 Bldg. Mnt. ESL	0	0	0	22	22	0
7 TV/Radio Repair	22	22	0	44	43	1
8 Bus. Occ. Base Core	0	0	0	36	23	13
9 Clerk	137	49	88	162	41	121
10 Clerk ESL	0	0	0	64	31	33
11 Typist	105	10	95	339	76	263
12 Steno	0	0	0	128	26	102
13 Bookkeeping	0	0	0	183	47	136
14 Med. Clk. Recep.	0	0	0	21	1	20
15 Production Mach.	77	77	0	34	34	0
Bank Teller				103	44	59
Woodwork'g Mach.	33	33	0	172	172	0
Furn. Refinisher	0	0	0	22	21	1
Welder/Met. Fab.	66	66	0	211	211	0
Lic. Pract. Nurse	0	0	0	87	6	81
Swiss Machine	0	0	0	7	6	1
TOTALS	524	340	184	2,115	1,281	834

OVERALL RATIOS:

FACILITY	MALE	FEMALE
RIATC	100%	
BATC	25%	75%
AATC	100%	
JATC	13%	87%
MATC	90%	10%
NYCATC	66%	34%
WATC	60%	40%

NOTE:

All data illustrate enrollments for periods as follows; 9/15/74 to 6/30/75 and 4/7/75 to 11/30/75

ENROLLMENTS BY DISCIPLINARY UNIT

BUSINESS AND DISTRIBUTIVE EDUCATION

Adults ENROLLMENTS

Subject or Program	TOTAL 10/75	BOYS 10/75	GIRLS 10/75	TOTAL 10/74	BOYS 10/74	GIRLS 10/74
1 Pre-Vocational	45	19	26	133	57	76
2 Bookkeeping & Acct.	521	145	376	1020	285	735
3 Data Processing	178	27	151	172	26	146
4 Clerical & Typing	1407	145	1262	1849	185	1664
5 Steno & Secretary	527	29	498	510	16	494
6 Supervision & Administrative Mgn.	61	27	34	23	14	9
7 Distributive Ed.	74	60	14	71	58	13
8						
9						
10						
11						
12						
13						
14						
15						

SECTION 12

MONITORING AND EVALUATION

MONITORING AND EVALUATION

A major step towards the implementation of improved evaluation procedures for VEA programs of the Center for Career and Occupational Education (CCOE) was begun in Summer 1976, with a series of workshops for program managers in the writing of improved performance-based objectives. As an outcome of these workshops, all VEA proposals submitted for the fiscal year beginning October 1976 will have objectives which include evaluation criteria. Clearly defined evaluation criteria enable the reviewer to gain a clear perception of program activities. An additional benefit is felt at the formative evaluation stage and, also in the monitoring and the summative evaluation of programs.

The State Education Department does not prescribe nor allocate separate funding for evaluation of each VEA proposal. Responsibility for the evaluation of approximately 70-80 such proposals is assigned to the Planning, Research and Evaluation Unit (PER) of the Center for Career and Occupational Education (CCOE). (Other VEA programs which are direct federal grants under separate parts of the VEA Act, include proposed evaluation strategies and budget allowances for evaluations). The PER Unit uses standard procedures for effective evaluation, with a flexibility to perform evaluation of the wide range of activities represented by the 70-80 programs. These programs are also subject to the system of monitoring prescribed by the Chancellor for all programs. Monitory reports provide an additional source of information for ongoing and summative evaluations. A minimum of five monitoring visits per year are mandated by the Chancellor and implemented under the director of Office of Funded Programs.

Monitoring and evaluation activities performed by the PER Unit include the followingt

1) Staff development workshops to improve the quality and objectivity of program evaluation designs.

2) Review of program objectives for conformance or compliance with accepted evaluation standards.

3) Assistance to program managers in developing ongoing management and reporting systems.

4) Design and revision, as required of end-of-year evaluation and data-collection instruments.

5) Conference to review outcomes of evaluations with program coordinators, and

6) Ultimately, to plan for the restructuring, modification, or elimination of existing proposals--and to design new porposals--based upon the learnings derived from the evaluation process.

An evaluation system therefore serves as a vital component of the planning process. It provides the basis for judging the value of innovative programs. The steps which CCOE has already taken to improve its evaluation activities as for example the Summer 1976 training workshops are expected to have a multiplier effect in producing improved objectives of proposals scheduled for submittal for October 1976. Equally it may be expected to sharpen management tools employed by program coordinators. Experience has proven that the benefits of evaluations are rarely confined to the individual programs, but influence the quality of the total effort.

Efforts have been made in drafting the present Plan's goals, objectives and activities (see pp. 39) to insure that insofar as possible measurable achievement is reflected in each of the objectives, thus providing the basis for clear-cut evaluation of program achievements. In essence, an effective evaluation system depends on the quality and precision of the program's stated objectives.

APPENDICES

APPENDIX TABLE I

ANNUAL CENSUS OF NYC PUBLIC SCHOOL POPULATION*: 1968-1976

Level		1968	1970	1972	1974							1976 (Est.)**
					Puerto Rican	Other Span. Surname Amer	Black	Amer. Indian	Oriental	Other	Total	
Elementary	#	601,559	615,221	587,751	140,114	28,869	201,691	226	12,333	170,204	553,437	528,750
	%				25.3	5.2	36.5	0.0+	2.2	30.8	100.0	
JHS/IS	#	228,446	232,485	228,105	53,331	10,861	87,361	93	4,772	70,584	227,002	227,975
	%				23.5	4.8	38.5	0.0	2.1	31.1	100.0	
Academic/ Comprehensive High Schools	#	235,876	246,078	260,068	42,670	13,016	91,738	209	5,412	113,750	264,785	268,050
	%				16.1	4.9	34.6	0.1	2.0	42.3	100.0	
Vocational Technical High Schools	#	40,202	39,093	43,102	14,063	1,325	16,516	45	688	10,591	43,218	45,175
					32.5	3.1	38.2	0.1	1.6	24.5	100.0	
Special Schools	#	6,799	8,198	9,965	3,274	321	5,758	4	47	2,378	11,782	12,750
	%				27.8	2.7	48.9	0.0	0.4	20.2	100.0	
Totals	#	1,121,922	1,141,075	1,128,991	253,452	54,392	403,064	577	23,252	365,487	1,100,224	1,082,700
	%				23.0	5.0	36.6	0.1	2.1	33.2	100.0	

* All data as of October 31 except for 1968 (December 7)

+ Estimated enrollments provided by Office of School Financial Aid.

** Numbers representing less than 0.1% noted as 0.0

APPENDIX TABLE II

NEW YORK CITY PUBLIC HIGH SCHOOL REGISTERS

1969-1975

AND PROJECTIONS FOR 1976-1977

School Type and Grades / School Year	ACADEMIC HIGH SCHOOLS *					VOCATIONAL HIGH SCHOOLS *					TOTAL High School Register
	Grade 9	Grades 10-12	Handi-capped	13th Year	Sub-total	Grade 9	Grades 10-12	Handi-capped	13th Year	Sub-total	
1969-70	41,518	193,204	1,363	2	236,087	8,073	30,547	108	209	38,937	275,024
1970-71	47,282	197,340	1,456	-	246,078	8,527	30,300	108	158	39,093	285,171
1971-72	50,400	203,373	1,697	-	255,470	9,538	31,367	53	194	41,152	296,622
1972-73	51,489	206,771	1,808	-	260,068	9,893	33,003	41	165	43,102	303,170
1973-74	52,920	206,475	1,819	-	261,214	9,990	33,213	32	135	43,370	304,584
1974-75	56,072	206,598	2,115	-	264,785	9,867	33,059	113	179	43,218	308,003
1976-77 (Projected)	265,200		2,850	-	268,050	44,850		325		45,175	313,225 **

* Registers as of October 31

** 13th year NOT included in Projections provided by Office of School Financial Aid

APPENDIX TABLE III

Secondary School Populations
(October 31, Registers)

School-Grade \ Year	1970	1972	1974 Puerto Rican	1974 Other Spanish Surn. Amer.	1974 Black	1974 Amer. Ind.	1974 Oriental	1974 Other	1974 Total	1976 Est.[a]
Academic H.S. 9	47,282	51,489	11,376	3,105	22,515	33	686	18,356	56,072	265,200
10	197,340	84,600	15,294	4,861	31,253	60	1,737	33,910	87,120	
11		71,353	9,520	3,051	22,136	76	1,633	32,334	68,770	
12		50,818	6,014	1,932	14,865	35	1,346	26,526	50,718	
Handicapped	1,456	1,801	466	67	964	5	10	603	2,115	2,850
Totals	246,078	260,068	42,670	13,016	91,738	209	5,412	111,740	264,785	268,050
Vocational H.S. 9	8,527	9,893	3,333	291	3,926	8	65	2,244	9,867	44,850
10	30,300	15,988	4,867	521	6,236	20	286	3,350	15,280	
11		10,053	3,390	389	3,918	11	189	2,733	10,530	
12		6,962	2,394	214	2,340	5	130	2,166	7,249	
Handicapped	108	41	79	10	96	1	18	88	292	325
13	158	165	-	-	-	-	-	-	-	
Totals	39,093	43,102	14,063	1,325	16,516	45	688	10,581	43,218	45,175
Total H.S. Population	285,171	303,170	56,733	14,341	108,254	254	6,100	122,321	308,003	313,225

[a] Projections provided by Office of School Financial Aid

APPENDIX TABLE IV

DISCHARGE of Public School Pupils by Cause and School Levels
School Year September 1974 - June 1975

Causes for Discharge	Total	Elem. Schools	Junior High Schools	Academic High Schools	Vocational High Schools
Graduates	54,731	99	14	48,107	6,511
Received Employment Certificate	2,104	64	83	1,704	253
Over 17 Years	37,061	2,092	214	31,237	3,518
Under 6 Years	4,576	4,561	13	2	-
Married	267	4	26	200	37
To Parochial Schools	14,696	11,543	2,163	912	78
To Business Schools	47	1	3	41	2
To Private Schools	3,806	2,088	826	834	58
Private Instruction at Home	4	3	-	1	-
To Institution	2,611	1,935	377	277	22
Moved From N. Y. C.	54,071	32,003	11,356	9,475	1,237
Not Found	12,786	6,174	2,908	3,339	355
Physical Disability	16	7	3	5	1
Mental Disability	-	-	-	-	-
Deceased	395	208	68	95	24
Board of Education Home Instruction	2,761	1,447	643	596	75
Beauty School	53	1	-	47	5
Total	189,985	62,230	18,697	96,872	12,186

Bureau of Attendance

N.Y.C. Board of Education

APPENDIX TABLE V

Student Enrollment and Dropout Data for Academic/Comprehensive (A/C) and Vocational (Voc.) High Schools 1968-69 through 1974-75

	1968-69		1970-71		1972-73		1974-75	
	A/C HS	VOC.HS	A/C HS	VOC.HS	A/C HS	VOC.HS	A/C HS	VOC.HS
Number Enrolled, 10/31	235,876	40,202	246,078	39,093	260,068	43,102	264,785	43,218
Number Dropouts-Sept-June	28,580	6,296	28,423	4,938	31,284	4,448	36,480	4,173
Percent Dropouts on Enrollment	12.1	15.7	11.6	12.6	12.0	10.3	13.8	9.7
Total Enrolled (A/C & Voc. HS's)	276,078		285,171		303,170		308,003	
Total Dropouts	34,876		33,361		35,732		40,653	
Percent Dropouts on Enrollments	12.6		11.7		11.8		13.2	
Total Dropouts	34,876		33,361		35,733		40,653	
Voc. High School Dropouts	6,296		4,938		4,448		4,173	
Percent Voc.H.S.Dropouts on Total Dropouts	18.0		14.8		12.4		10.3	
Percent Voc.H.S.Enrollment on Total Enrollment	17.0		15.9		16.6		16.3	

APPENDIX TABLE VI

Admissions & Discharges of Public School Pupils
By School Levels & Areas of Origin/Destination
(September - June)
Numbers of Students

Origin & Destination	TOTAL				ELEM.				JHS				ACAD. HS				VOC. HS			
	IN		OUT		IN		OUT		IN		OUT		IN		OUT		IN		OUT	
	70	74	70	74	70	74	70	74	70	74	70	74	70	74	70	74	70	74	70	74
Suburban Counties[1]	3504	3834	10959	10148	2042	2176	7454	6534	636	681	1875	1947	780	942	1476	1509	46	35	154	158
Other NYS. Conn New Jersey	4075	4595	9793	10006	2523	2745	6381	6110	721	806	1746	2039	784	991	1476	1609	47	53	190	248
New England (Conn.)	632	697	1386	1591	336	401	799	921	137	125	278	338	152	167	272	294	7	4	37	38
Middle Atlantic[2]	2076	1993	3283	3306	1146	1116	1936	1882	448	414	683	661	451	447	590	678	31	16	74	86
Southern & Border[3]	6355	5551	7828	8959	3336	2962	4464	4775	1432	1258	1617	1960	1522	1254	1587	1970	65	77	160	254
Other States in U.S.	3481	3081	5404	5030	2135	1797	3180	2753	644	597	992	1012	677	662	1094	1132	25	25	138	133
Puerto Rico	11466	8547	12752	9254	6880	4649	7391	5317	2818	2280	3076	2298	1626	1509	1851	1386	142	109	434	253
West Indies	11597	10432	1605	1789	5946	4889	941	1035	2603	2537	327	415	2952	2900	307	307	96	106	30	32
Europe	3582	2728	1471	1440	2285	1633	1034	954	714	540	236	257	573	543	197	220	10	12	4	9
Other Foreign Countries	7801	8037	2418	2548	4500	4581	1582	1723	1565	1577	421	429	1711	1853	397	370	25	26	18	26
Total Areas	54569	49495	56899	54071	31129	26949	35162	32004	11718	10815	11251	11350	11228	11268	9247	9475	494	463	1239	1237
% on 10/31 Registers	4.8	4.5	5.0	5.0	5.0	4.9	5.7	5.8	5.0	4.8	4.8	5.1	4.6	4.3	8.8	3.6	1.2	1.1	3.1	2.8

[1] Nassau, Suffolk, Westchester, Rockland

[2] Pennsylvania, Delaware, Maryland, Virginia

[3] N. & S. Carolina, Georgia, W. VA. Tennessee, ~~Alabama, Mississippi~~, Florida

APPENDIX TABLE VII

Comparative Ethnic Student Census (1970-1974)
City-Wide Non-Public Schools (*)

Number of Students Enrolled

		Spanish Surnamed	Black	American Indian	Oriental	Others	Total
Elementary (K-6)	1970	31,488	21,646	245	1,745	188,576	243,700
	1974	29,629	23,187	330	2,430	144,757	200,333
	Changes	- 1,859	+ 1,541	+ 85	+ 685	- 43,819	- 43,367
Intermediate (7-9)	1970	10,639	7,285	107	525	80,580	99,186
	1974	11,021	7,579	215	808	66,171	85,794
	Changes	+ 382	+ 294	+108	+ 283	- 14,409	- 13,342
Secondary (10-12(**)	1970	4,528	3,690	39	328	59,806	68,391
	1974	5,024	4,350	133	468	50,930	60,935
	Changes	+ 526	+ 660	+ 94	+ 140	- 8,876	- 7,456
Total	1970	46,655	32,621	391	2,598	328,962	411,227
	1974	45,704	35,116	678	3,706	261,858	347,062
	Changes	- 951	+ 2,495	+287	+ 1,108	- 67,104	- 64,165

*Office of Educational Statistics

**Includes 121 Secondary Ungraded and 883 13th Year Students

APPENDIX TABLE VIII

Registers in Private and Denominational Non-Public Schools of New York City (1974)

Numbers of Students By Ethnic Groups

School Level	Spanish Surname	Black	American Indian	Oriental	Others	Total
Elementary						
Private	1,107	4,326	219	323	13,716	19,691
Denom.	28,522	18,861	111	2,107	131,041	180,642
Intermediate (Grades 7-9)						
Private	188	1,234	136	171	6,410	8,139
Denom.	10,833	6,365	79	637	59,761	77,655
Secondary (Grades 10-12)						
Private	382	1,230	94	144	6,502	8,352
%	7.6	28.3	29.3	30.8	12.8	13.7
Denom.	4,642	3,120	39	324	44,428*	52,583
%	92.4	72.7	70.7	69.2	87.2	86.3
Total Enrollments						
Private	1,677	6,790	449	638	26,628	36,182
%	3.7	19.3	66.2	17.2	10.2	10.4
Denom.	43,397	28,326	229	3,068	235,230	310,880
%	96.3	80.7	33.8	82.8	89.8	89.6

*Includes 121 Secondary Ungraded and 883 13th Year Students

APPENDIX TABLE IX

Student Registers in Denominational Schools of New York City October, 1974

Number of Students Enrolled

orough and School Level School ffiliation	Queens Elem.	Queens Int.	Queens Sec.	Manhattan Elem.	Manhattan Int.	Manhattan Sec.	Bronx Elem.	Bronx Int.	Bronx Sec.
Roman Catholic	42,790	19,597	11,625	17,871	9,060	7,243	28,797	13,677	11,574
Jewish	114	82	287	23	198	568	140	23	-
Jewish Conservative	501	134	-	71	8	-	75	-	-
Jewish Orthodox	2,956	775	535	1,575	666	660	1,158	328	257
Lutheran	71	27	-	-	-	-	92	-	-
Lutheran, Atlantic	1,729	550	368	349	51	-	416	208	169
SDA-N.E. Conference*	217	69	-	-	29	52	176	66	-
SDA-Greater N.Y. Conf.	63	97	197	-	-	-	158	96	-
Episcopal	118	17	-	1,800	549	359	21	-	-
Episcopal, L.I.	322	65	-	-	-	-	-	-	-
Greek Orthodox	1,405	327	79	-	-	-	181	48	-
Soc. of Friends	-	-	-	200	154	155	-	-	-
Russian Orthodox	-	-	-	-	17	20	-	-	-
Presbyterian	-	-	-	114	-	-	-	-	-
Baptist	-	-	-	-	-	-	-	-	-
Totals	50,286	21,740	13,091	22,003	10,732	9,057	31,214	14,446	12,000
		85,117			41,792			57,660	

* Seventh Day Adventists

APPENDIX TABLE IX (Cont'd.)

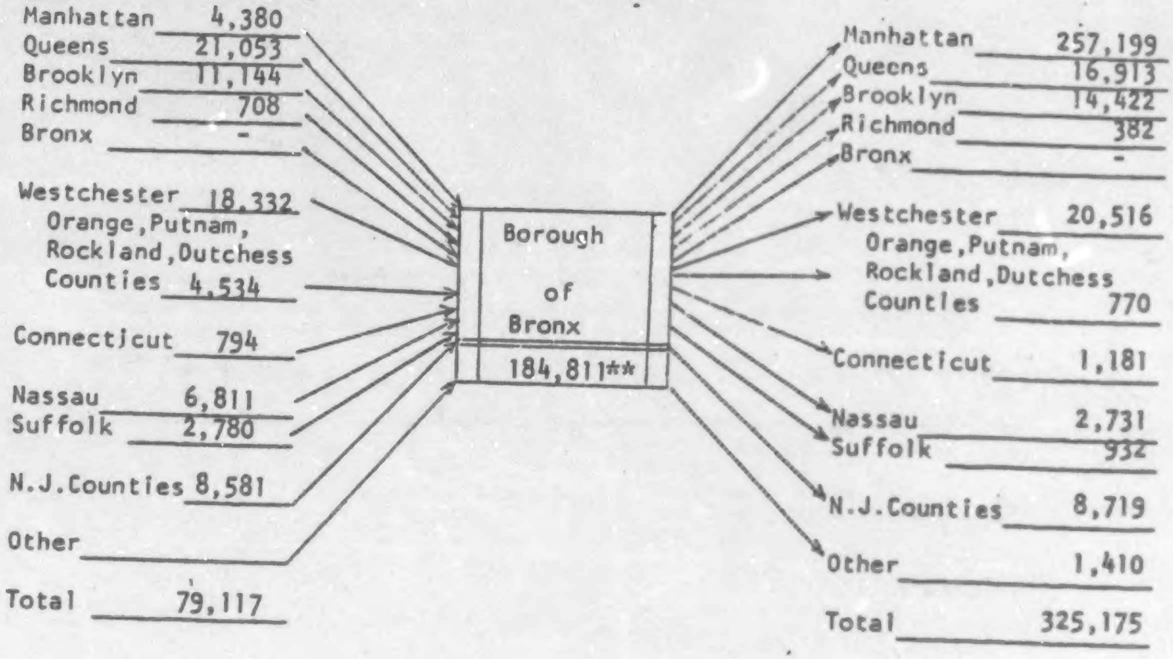
Student Registers in Denominational Schools of New York City(cont'd.)
October, 1974

Borough and School Level / School Affiliation	Brooklyn Elem.	Brooklyn Int.	Brooklyn Sec.	Richmond Elem.	Richmond Int.	Richmond Sec.	Totals Elem.	Totals Int.	Totals Sec.
Roman Catholic	42,365	18,866	9,342	10,530	5,078	3,431	142,353	66,278	43,215
Jewish	878	864	1,761	-	-	-	1,155	1,167	2,616
Jewish Conservative	585	181	129	-	-	-	1,232	323	129
Jewish Orthodox	17,656	4,538	3,468	256	32	-	23,601	6,339	4,920
Lutheran	1,077	195	-	347	84	-	1,587	306	-
Lutheran, Atlantic	572	152	-	253	75	-	3,319	1,036	537
SDA-N.E. Conference *	437	133	-	-	-	-	830	297	52
SDA-Greater N.Y. Conf.	118	55	-	18	-	-	357	248	197
Episcopal,	-	-	-	-	-	-	1,939	566	359
Episcopal, L.I.	995	217	182	-	-	-	1,317	282	182
Greek Orthodox	479	102	-	-	-	-	2,065	477	-
Soc. of Friends	289	134	122	-	-	-	489	288	277
Russian Orthodox	134	31	-	-	-	-	134	48	20
Presbyterian	-	-	-	-	-	-	114	-	-
Baptist	150	-	-	-	-	-	150	-	-
Totals	65,735	26,468	15,004	11,404	5,269	3,431	180,642	77,655	52,583
		106,207			20,104			310,880	

Seventh Day Advent

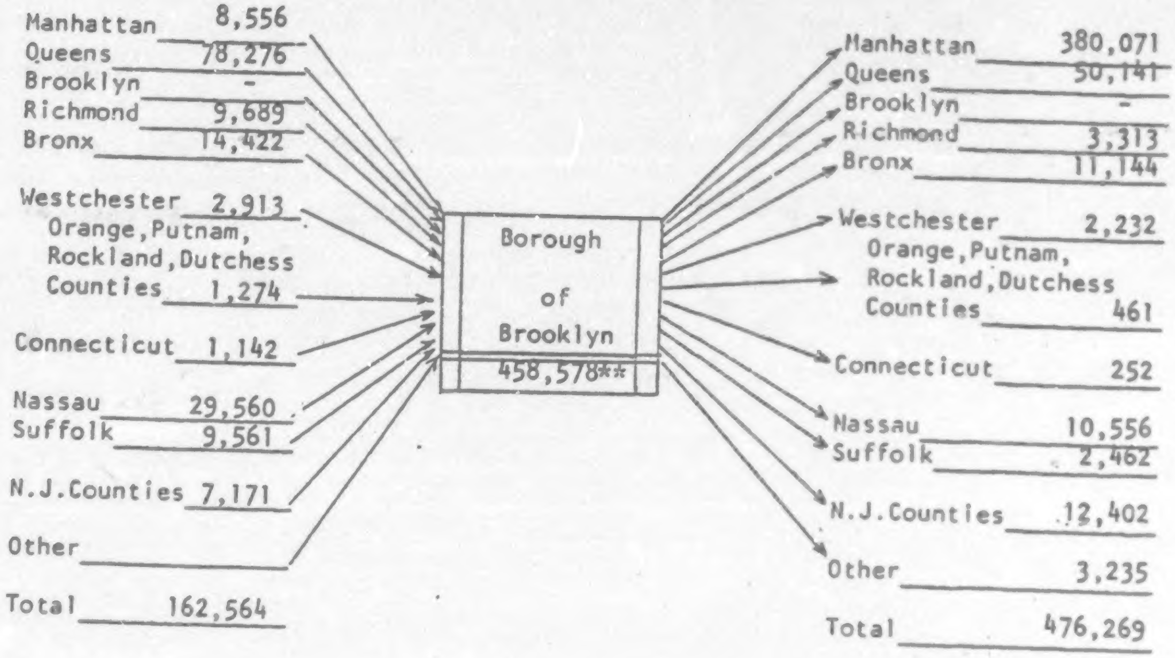
APPENDIX TABLE X

Work Flow Patterns of NYC Borough Residents
(1970 Census Data)*



Manhattan	4,380	Manhattan	257,199
Queens	21,053	Queens	16,913
Brooklyn	11,144	Brooklyn	14,422
Richmond	708	Richmond	382
Bronx	-	Bronx	-
Westchester	18,332	Westchester	20,516
Orange, Putnam, Rockland, Dutchess Counties	4,534	Orange, Putnam, Rockland, Dutchess Counties	770
Connecticut	794	Connecticut	1,181
Nassau	6,811	Nassau	2,731
Suffolk	2,780	Suffolk	932
N.J. Counties	8,581	N.J. Counties	8,719
Other		Other	1,410
Total	79,117	Total	325,175

Work Flow Patterns of NYC Borough Residents
(1970 Census Data) (1)



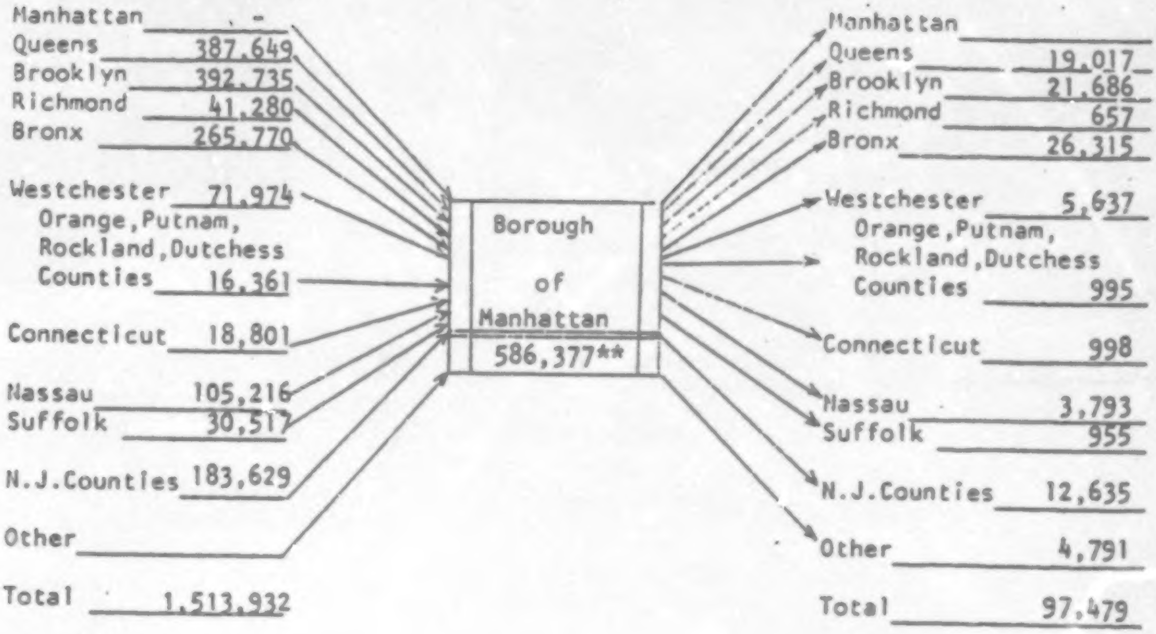
Manhattan	8,556	Manhattan	380,071
Queens	78,276	Queens	50,141
Brooklyn	-	Brooklyn	-
Richmond	9,689	Richmond	3,313
Bronx	14,422	Bronx	11,144
Westchester	2,913	Westchester	2,232
Orange, Putnam, Rockland, Dutchess Counties	1,274	Orange, Putnam, Rockland, Dutchess Counties	461
Connecticut	1,142	Connecticut	252
Nassau	29,560	Nassau	10,556
Suffolk	9,561	Suffolk	2,462
N.J. Counties	7,171	N.J. Counties	12,402
Other		Other	3,235
Total	162,564	Total	476,269

* 1970 Census Worker File, Tri-State Regional Planning Commission, 9/24/75

** Residents of Borough employed in Borough

APPENDIX TABLE X (cont'd)

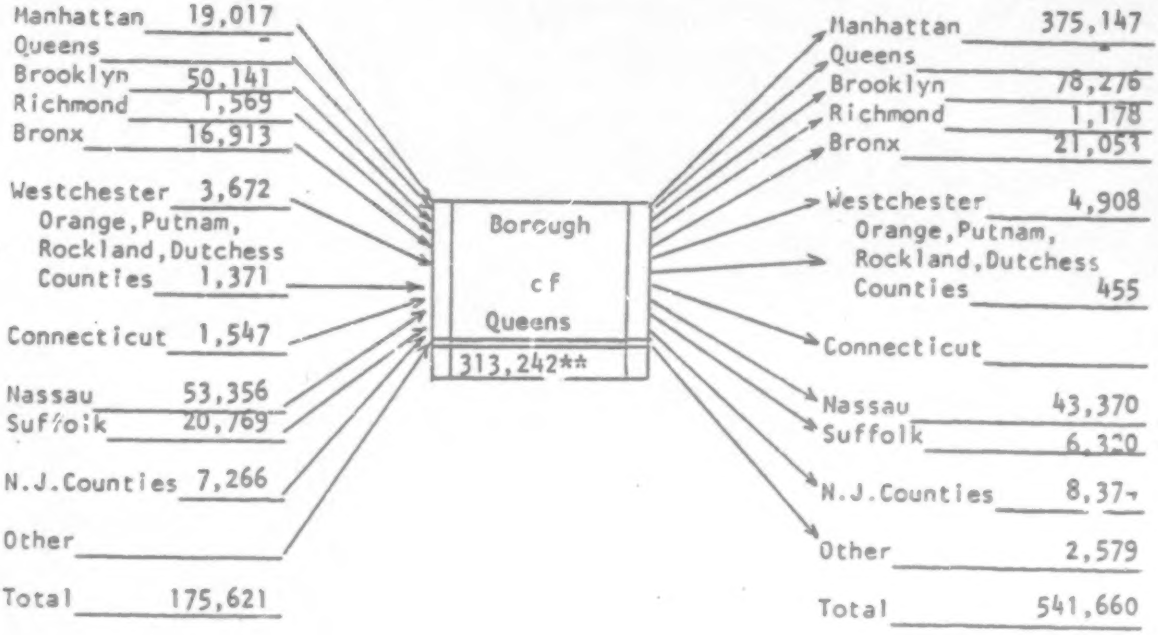
Work Flow Patterns of NYC Borough Residents
(1970 Census Data)*



Manhattan	-
Queens	387,649
Brooklyn	392,735
Richmond	41,280
Bronx	265,770
Westchester	71,974
Orange, Putnam, Rockland, Dutchess Counties	16,361
Connecticut	18,801
Nassau	105,216
Suffolk	30,517
N.J. Counties	183,629
Other	
Total	1,513,932

Manhattan	
Queens	19,017
Brooklyn	21,686
Richmond	657
Bronx	26,315
Westchester	5,637
Orange, Putnam, Rockland, Dutchess Counties	995
Connecticut	998
Nassau	3,793
Suffolk	955
N.J. Counties	12,635
Other	4,791
Total	97,479

Work Flow Patterns of NYC Borough Residents
(1970 Census Data) (1)



Manhattan	19,017
Queens	-
Brooklyn	50,141
Richmond	1,569
Bronx	16,913
Westchester	3,672
Orange, Putnam, Rockland, Dutchess Counties	1,371
Connecticut	1,547
Nassau	53,356
Suffolk	20,769
N.J. Counties	7,266
Other	
Total	175,621

Manhattan	375,147
Queens	-
Brooklyn	78,276
Richmond	1,178
Bronx	21,053
Westchester	4,908
Orange, Putnam, Rockland, Dutchess Counties	455
Connecticut	
Nassau	43,370
Suffolk	6,320
N.J. Counties	8,37-
Other	2,579
Total	541,660

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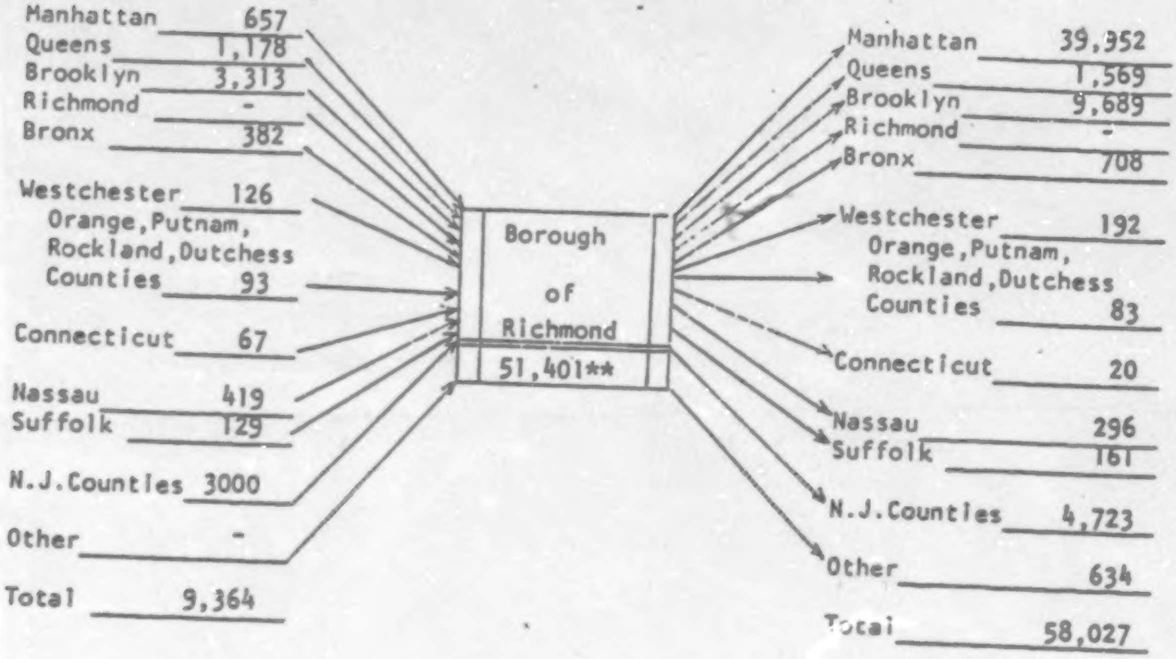
* 1970 Census Worker File, Tri-State Regional Planning Commission, 9/24/75

** Residents of Borough employed in Borough

APPENDIX TABLE X (cont'd)

Work Flow Patterns of NYC Borough Residents
(1970 Census Data)*



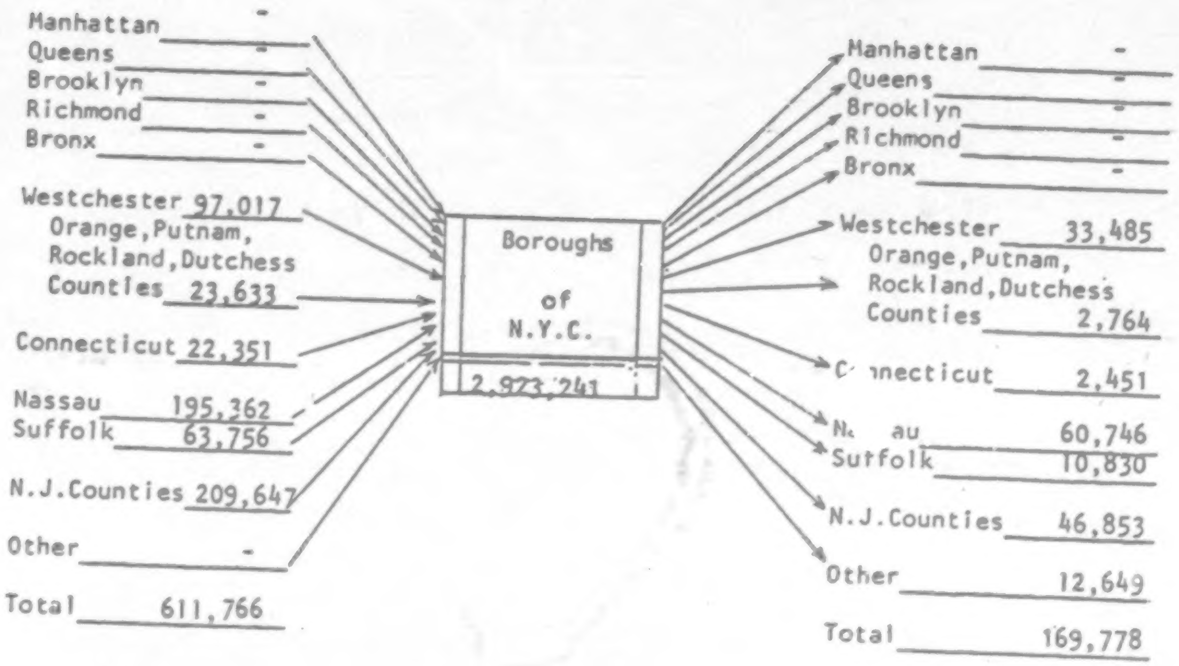
Manhattan	657
Queens	1,178
Brooklyn	3,313
Richmond	-
Bronx	382
Westchester	126
Orange, Putnam, Rockland, Dutchess Counties	93
Connecticut	67
Nassau	419
Suffolk	129
N.J. Counties	3000
Other	-
Total	9,364

Borough of Richmond

51,401**

Manhattan	39,952
Queens	1,569
Brooklyn	9,689
Richmond	-
Bronx	708
Westchester	192
Orange, Putnam, Rockland, Dutchess Counties	83
Connecticut	20
Nassau	296
Suffolk	161
N.J. Counties	4,723
Other	634
Total	58,027

Work Flow Patterns of NYC Borough Residents
(1970 Census Data) (1)



Manhattan	-
Queens	-
Brooklyn	-
Richmond	-
Bronx	-
Westchester	97,017
Orange, Putnam, Rockland, Dutchess Counties	23,633
Connecticut	22,351
Nassau	195,362
Suffolk	63,756
N.J. Counties	209,647
Other	-
Total	611,766

Boroughs of N.Y.C.

2,923,241

Manhattan	-
Queens	-
Brooklyn	-
Richmond	-
Bronx	-
Westchester	33,485
Orange, Putnam, Rockland, Dutchess Counties	2,764
Connecticut	2,451
Nassau	60,746
Suffolk	10,830
N.J. Counties	46,853
Other	12,649
Total	169,778

* 1970 Census Worker File, Tri-State Regional Planning Commission, 9/24/75

** Residents of Borough employed in Borough + Residents of NYC employed in Boroughs

APPENDIX TABLE XI

AVERAGE ANNUAL EMPLOYMENT AND JOB OPENINGS BY OCCUPATION
NEW YORK CITY, FY 1975 and FY 1977

Occupation	Estimated employment a/		Average annual job openin due to	
	FY 1977	FY 1975	Net employment change b/	Labor * force separations
Total, all occupations	3,248,100	3,410,500	-72,200	143,700
Professional, technical, kindred	585,200	597,200	- 5,300	22,700
Engineers, technical	29,200	30,800	- 700	500
Engineers, civil	6,200	6,400	- 100	100
Engineers, electrical	7,100	7,500	- 100	100
Engineers, mechanical	3,800	4,200	- 100	100
Life and physical scientists	5,600	5,900	- 100	100
Mathematical specialists	3,100	3,200	-	100
Statisticians	2,100	2,200	-	100
Engineers, science technicians	22,200	23,000	- 300	400
Drafters	9,900	10,500	- 300	200
Engineering, science tech, n.e.c.	4,500	4,400	100	100
Medical workers, exc. tech.	95,300	96,700	- 600	5,000
Dentists	5,800	6,000	- 100	300
Dietitians	2,700	2,800	-	200
Pharmacists	5,000	5,300	- 100	200
Physicians, MD osteopaths	26,100	26,500	- 200	1,100
Registered nurses	48,500	49,000	- 200	2,900
Therapists	5,100	4,900	100	200
Health technol. and tech.	17,700	17,200	200	900
Clinical lab technol., tech.	8,500	8,200	100	400
Dental hygienists	1,100	1,000	-	100
Health record technol., tech.	900	900	-	100
Radiologic technol., tech.	3,100	3,100	-	100
Other health technol., tech.	3,900	3,800	100	200
Technicians, excluding health	3,700	3,700	-	100
Computer specialists	18,200	18,300	-	400
Computer programmers	12,400	12,500	- 100	300
Computer systems analysts	5,100	5,000	-	100
Social scientists	10,600	10,400	100	300
Economists	6,300	6,400	-	100
Psychologists	3,300	3,100	100	100
Urban and regional planners	600	600	-	-
Teachers	124,200	126,900	- 1,200	5,700
Adult education	2,000	2,100	-	100
Elementary school	51,700	52,900	- 500	2,900
Preschool-kindergarten	4,600	4,600	-	300
Secondary school	36,700	38,200	- 700	1,300
Teachers n.e.c. exc. college and university	8,300	8,300	-	400
Teachers, college & university	21,000	20,900	-	700
English	1,900	1,900	-	100
Mathematics	1,000	1,000	-	-

* Replacement Openings

APPENDIX TABLE XI (Cont'd)

Average Annual Employment And Job Openings By Occupation (Continued)

Occupation	Estimated employment a/		Average annual job openings due to	
	FY 1977	FY 1975	Net employment change b/	Labor force separations c/ *
Writers, artists, entertainers	85,500	89,000	- 1,600	3,000
Actors	3,600	3,700	- 100	100
Athletes and kindred workers	1,500	1,600	-	-
Authors	4,200	4,400	- 100	200
Designers	15,800	16,700	- 400	600
Editors and reporters	19,400	20,100	- 300	800
Musicians and composers	7,200	8,290	- 200	300
Painters and sculptors	12,900	13,500	- 300	500
Public relations practs., writers	7,500	7,600	- 100	300
Writers, artists, entertain n.e.c.	6,500	6,500	-	200
Other professional, technical	69,800	172,200	- 1,100	6,200
Accountants	50,800	52,900	- 900	1,600
Architects	3,900	4,000	- 100	100
Clergy	8,100	8,	-	300
Religious, exc clergy	1,900	1,900	-	100
Judges and lawyers	25,900	26,400	- 200	1,100
Librarians	4,900	5,000	-	300
Operations, systems research	4,600	4,500	-	100
Personnel labor relations	20,300	20,600	- 100	700
Research workers, n.e.c.	10,700	10,500	100	400
Recreation workers	3,600	3,600	-	100
Social workers	28,700	28,500	100	1,300
Vocational, ed. counselors	5,400	5,200	100	200
Managers, officials, proprietors	301,700	309,800	- 3,600	10,200
Buyers, sales, loan managers	68,000	69,800	- 800	2,200
Bank, financial managers	22,200	22,100	-	600
Credit managers	3,100	3,300	- 100	100
Buyers, wholesale, retail	17,300	18,000	- 300	800
Purchasing agents, buyers, n.e.c.	6,900	7,200	- 100	200
Sales managers, retail trade	7,400	7,600	- 100	200
Administrators, pub inspectors	26,600	26,600	-	1,000
Construction inspectors, public	800	800	-	-
Health administrators	4,800	4,700	100	200
Off'ls, administrators, public	8,700	9,000	- 100	300
School admin, college	1,700	1,600	-	100
School admin, elem, secondary	5,600	5,600	-	200
Other managers, off'ls, props	207,100	213,400	- 2,800	7,100
Mgrs, superintendents, bldg.	11,900	11,700	100	600
Office managers, n.e.c.	14,000	14,000	-	600
Officrs, pilots, pursers, ship	1,300	1,400	- 100	-
Off'ls of lodges, societies, unions	4,000	3,900	-	200
Restaurant, cafe, bar mgrs.	12,600	13,700	- 500	400
Sales workers	257,400	265,600	- 3,600	11,100
Hucksters and peddlers	2,900	3,100	- 100	100
Insurance agents, brokers, etc.	18,700	19,200	- 200	600
Newspaper Carriers	1,200	1,400	- 100	-

* Replacement Openings

APPENDIX TABLE XI (Cont'd)

Average Annual Employment And Job Openings By Occupation (Continued)

Occupation	Estimated employment a/		Average annual job openin due to	
	FY 1977	FY 1975	Net employment change b/	Labor force separations *
Sales workers (con't)				
Real estate agents, brokers	9,900	10,100	- 100	500
Sales agents, securities	17,800	17,900	-	600
Sales repres., mfg.	24,800	26,500	- 700	800
Sales repres,,wholesale trade	46,200	48,300	- 900	1,600
Sales clerks, retail trade	102,900	106,000	- 1,300	5,700
Sales associates, retail trade	12,600	12,900	- 100	400
Sales associates, serv.and constr.	13,800	13,900	-	600
Clerical workers	861,300	900,200	-17,300	50,700
Stenographers, typists, secretaries	291,400	300,400	- 4,000	21,400
Secretaries, legal	7,600	7,600	-	600
Secretaries, medical	4,000	4,100	-	300
Secretaries, other	191,100	195,400	- 1,900	14,100
Stenographers	6,200	6,900	- 300	500
Typists	82,600	86,300	- 1,700	6,000
Office machine operators	41,100	43,800	- 1,200	2,100
Bookkeeping, billing operators	4,800	5,100	- 100	300
Calculating machine operators	3,100	3,500	- 200	200
Computer peripheral equip. oper.	10,800	10,600	100	200
Duplicating machine operators	1,900	2,000	-	100
Keypunch operators	17,200	19,200	- 900	1,100
Tabulating machine operators	500	600	- 100	-
Other clerical workers	528,800	556,100	12,100	27,200
Bank tellers	17,900	18,300	- 200	1,000
Billing clerks	8,000	8,200	- 100	500
Bookkeepers	101,300	108,000	- 3,000	6,000
Cashiers	32,500	34,300	- 800	2,000
Clerical supervisors, n.e.c.	9,000	9,300	- 100	400
Collectors, bill and account	2,600	2,800	- 100	100
Counter clerks, except food	12,800	13,400	- 300	700
Dispatchers, starters, vehicle	4,400	4,600	- 100	100
Estimatrs, investigatrs, n.e.c.	16,900	17,700	- 400	700
Expediters, prod. controllers	7,800	8,400	- 300	200
File clerks	44,300	47,000	- 1,200	2,900
Insurance adjusters, examiners	6,900	7,300	- 200	200
Library attendants, assistants	4,300	4,400	-	300
Mail carriers, post office	12,800	13,500	- 300	200
Mail handlers, exc.post office	14,300	14,800	- 200	700
Messengrs and office helpers	12,200	13,300	- 500	900
Payroll, timekeeping clerks	9,000	9,300	- 200	500
Postal clerks	24,900	26,400	- 700	700
Proofreaders	2,000	2,200	- 100	100
Receptionists	19,500	20,500	- 400	1,400
Shipping, receiving clerks	27,200	29,700	- 1,100	800
Statistical clerks	23,000	24,300	- 600	1,200
Stock clerks, store keepers	20,500	21,700	- 600	600
Teachers aides, exc. monitors	13,400	12,700	400	600

* Replacement Openings

APPENDIX TABLE XI (Cont'd)

Average Annual Employment And Job Openings By Occupation (Continued)

Occupation	Estimated employment a/		Average annual job openings due to	
	FY 1977	FY 1975	Net employment change b/	Labor force separations c/ */
Other clerical workers (con't)				
Telephone operators	26,200	28,400	- 1,000	1,800
Ticket station, express agents	9,400	9,800	- 200	400
Craft workers, supervisors, kindred occupations	309,200	333,700	-10,900	8,300
Construction craft workers	76,000	81,500	- 2,400	2,000
Carpenters	18,400	19,800	- 700	500
Brickmasons and stonemasons	4,100	4,500	- 100	100
Excavating, grading, mach.operator	1,500	1,700	- 100	-
Painters, construction, maint.	14,300	15,600	- 600	500
Structural metal crafts workers	2,100	2,300	- 100	-
Supervisors, n.e.c.	51,800	55,300	- 1,600	1,400
Metalwrkng craft workers, exc. mech.	16,000	18,100	- 900	400
Job and die setters, metal	900	1,100	100	-
Machinists	6,700	7,500	- 400	200
Pattern and model makers	700	800	-	-
Sheet metal wkrs, tinsmiths	2,400	2,800	- 100	100
Tool and diemakers	2,800	3,200	- 200	100
Mechanics, repairers, installers	69,900	73,400	- 1,600	1,300
Air cond, heating, refrig.	5,900	6,000	-	100
Aircraft	4,400	4,400	-	100
Auto mechanics	22,500	23,500	- 400	400
Data processsng mach.repairers	2,300	2,200	-	-
Heavy equip mech,,incl. diesel	15,000	16,200	- 600	300
Radio, television repairers	4,100	4,400	- 100	100
Railroad, car shop repairers	2,500	2,500	-	100
Printing trades crafts workers.	22,500	25,300	- 1,200	600
Compositors and typesetters	8,600	9,900	- 500	300
Press ops. and plate printers	9,000	10,000	500	200
Transportation, pub.util.crafts	19,400	20,500	- 500	200
Telephone installers, repairers	15,600	16,400	- 400	200
Telephone line workers, splicers	1,600	1,700	- 100	-
Other crafts & kindred workers	53,500	59,400	- 2,600	2,200
Bakers	6,500	7,400	- 400	200
Cabinetmakers	2,600	2,900	- 200	100
Carpet installers	1,500	1,600	-	-
Crane op., derrick op., hoist op.	1,200	1,300	- 100	-
Dental laboratory tech.	2,100	2,200	-	100
Motion picture projectionists	1,100	1,200	-	100
Tailors	9,700	11,000	- 600	500
Upholsterers	1,900	2,100	- 100	100
Crafts and kindred wrkrs, n.e.c.	2,400	2,800	- 200	100
Operatives	384,500	416,800	-14,400	15,500
Operatives, exc.transport	271,500	298,500	-12,000	12,900
Semiskilled metal workers	14,300	15,400	- 500	400
Lathe, milling mach operatives	1,500	1,700	- 100	-
Welders and flame cutters	6,500	6,900	- 200	100

* Replacement Openings

APPENDIX TABLE XI (Cont'd)

Average Annual Employment And Job Openings By Occupation (Continued)

Occupation	Estimated employment a/		Average annual job openings due to	
	FY 1977	FY 1975	Net employment change b/	Labor force separations c/ *
Operators (Con't)				
Semiskilled textile operatives	6,400	7,100	- 300	300
Knitters, loopers, and toppers	22,200	2,400	- 100	100
Semiskilled packing, inspecting workers	36,900	40,100	- 1,400	1,700
Meat wrappers, retail trade	1,700	1,800	-	100
Packers, wrappers, exc. meat, produce	24,500	26,700	- 1,000	1,100
Other operatives, exc transport	213,900	235,800	- 9,700	10,500
Assemblers	14,400	15,900	- 700	600
Bottling, canning operatives	1,200	1,400	- 100	-
Clothing ironers and pressers	11,400	13,000	- 700	600
Cutting operatives, n.e.c.	8,800	9,600	- 400	300
Dressmakers, seamstress, exc. fact.	5,500	5,800	- 100	400
Filrs, polishrs, sandrs, buffers	3,400	3,900	- 200	100
Garage workrs, gas sta. attend.	4,900	5,300	- 200	100
Laundry, dry clean op., n.e.c.	9,000	9,600	- 300	400
Meat cutters, butchrs, exc. mfg.	9,300	10,400	- 500	300
Meat cutters, butchers	800	1,000	- 100	-
Mixing operatives	1,700	1,900	- 100	-
Painters, mfg. articles	2,400	2,600	- 100	100
Photographic process workers	5,500	5,700	- 100	200
Sailors and deckhands	2,700	3,100	- 200	100
Sewers and stitchers	80,300	88,600	- 3,700	5,500
Shoemaking machine operatives	1,100	1,400	- 100	100
Machine oper, misc. specified	20,900	23,100	- 1,000	700
Operatives, n.e.c.	21,200	23,400	- 1,000	800
Transport equipment operatives	113,000	118,300	- 2,400	2,600
Bus drivers	14,500	14,500	-	400
Conductors, motor ops. urban rail	5,300	5,400	-	100
Delivery drivers	27,100	28,800	- 800	500
Fork lift, tow motor ops.	3,100	3,400	- 100	100
Parking attendants	2,000	2,100	-	100
Taxicab drivers, chauffeurs	22,800	23,400	- 300	800
Truck drivers	36,600	39,100	- 1,100	700
Service workers	455,200	485,700	-13,600	23,200
Cleaning service workers	109,100	114,200	- 2,300	5,300
Room cleaners, exc. priv. hshld.	7,800	8,500	- 300	500
Cleaners and char workers	50,000	52,900	- 1,300	2,500
Janitors and sextons	51,300	52,800	- 700	2,200
Food service workers	101,600	112,700	- 4,900	4,800
Bartenders	9,000	10,100	- 500	300
Dish carriers	2,800	3,200	- 200	-
Cooks, exc. private	28,200	31,100	- 1,300	1,100
Dishwashers	4,500	4,900	- 200	100
Food counter, fountain workers	7,500	8,600	- 500	400

* Replacement Openings

APPENDIX TABLE XI (Cont'd)

Average Annual Employment And Job Openings By Occupation (Continued)

Occupation	Estimated employment a/		Average annual job openings due to	
	FY 1977	FY 1975	Net employment change b/	Labor force separations c/ *
Food service workers (con't)				
Waiters/waitresses	36,200	40,500	- 1,900	2,000
Food wrkrs, n.e.c., exc private	13,400	14,300	- 400	700
Health service workers	60,000	60,800	- 300	3,700
Dental assistants	4,300	4,500	- 100	300
Health aides, except nursng	8,700	8,500	100	500
Nurses aides, orderlies	35,000	35,800	- 300	2,000
Practical nurses	11,600	11,500	100	800
Personal service workers	62,800	68,100	- 2,300	3,900
Flight attendants	5,500	5,400	-	500
Attend, recreation, amusement	2,800	2,900	-	100
Attend, personal, service, n.e.c.	8,700	9,800	- 500	600
Baggage porters and bellhops	1,400	1,700	- 100	-
Barbers	4,700	5,600	- 400	200
Child care workers, exc.private	4,500	4,500	-	300
Elevator operators	7,900	9,900	- 900	500
Hairdressers, cosmetologists	16,800	17,600	- 300	1,100
Housekeepers, exc.private	4,800	5,000	- 100	300
School monitors	1,000	1,000	-	-
Ushers, recreation, amusement	1,300	1,500	- 100	-
Welfare service aides	3,100	2,800	100	100
Protective service workers	79,500	81,800	- 1,000	2,000
Crossing guard, bridge tenders	2,800	2,900	- 100	200
Firefighters	11,300	11,500	- 100	100
Guards	27,800	29,000	- 500	1,300
Police officers and detectives	36,500	37,300	- 300	400
Private household workers	42,200	48,200	- 2,700	3,600
Child care workers	3,900	4,500	- 300	300
Cooks, private	2,100	2,400	- 100	200
Housekeepers, private	5,600	6,400	- 300	500
Maids, servants private	30,300	34,600	- 1,900	2,500
Laborers, except farm	92,300	100,100	- 3,500	2,000
Animal caretakers, exc farm	1,200	1,200	-	100
Constr labr, exc carpentrs help	15,300	16,800	- 700	300
Freight, material handlers	22,800	24,900	- 900	500
Garbage collectors	9,500	9,700	- 100	100
Gardeners, groundkeepers, exc.farm	7,400	7,600	- 100	300
Stevedores	8,800	9,900	- 500	200
Stock handlers	16,400	17,700	- 600	300
Vehicle washers, equip. cleaners	3,100	3,500	- 200	100
Warehouse workers, n.e.c.	2,700	3,000	- 200	100

* Replacement Openings

APPENDIX B

THE UNIVERSE OF NEED FOR EMPLOYMENT-RELATED SERVICES

The Universe of Need is an estimate of the total number of different individuals residing in the Area, both those unemployed and underemployed, who may need employment-related assistance. The total indicates the potential need for such services during Fiscal Year 1977; in the absence of new data, the Universe of Need estimates are the same as those for Fiscal Year 1976.

Of the nearly 1,420,000 New York City residents in the Universe of Need; almost 832,000 - or about 59 percent - are minority group members, a much greater representation than in the general adult population (those 16 years of age or older).

More than 1 in 5 persons in the Universe of Need is poor, and of these nearly 295,000 meet the disadvantaged criteria that were in effect until recently. Of the non-poor persons in the Universe of Need, about 1 out of 3 is in the near-poverty category while the rest have income significantly above the poverty level.

More than 867,000 individuals will suffer some spell of joblessness during Fiscal Year 1977, it is estimated. Data from the 1970 Census and the Current Population (CPS) survey for 1973 shows that the incidence of unemployment was higher among members of minority groups and for women, and we can expect a continuation of this pattern. It is estimated that, of the total number of persons out of work sometime during the year, approximately 389,000 will be women, 310,000 minorities, 199,000 youngsters between the ages of 16 and 21, and 382,000 older workers, i.e. persons 45 or older.

A sizable percentage of persons in the Universe of Need will be considered underutilized. The bulk of them will not be participants in the labor force because of barriers to employment which prevent them from working or seeking work. Another substantial portion of the group will consist of persons employed full time but with family income at or below the poverty level or near poverty levels. Others will be employed only part time for economic reasons such as slack work or unavailability of a full-time job. In all three groups of those who are underutilized, the representation of nonwhites is greater than in the general population.

In the City, approximately 102,000 ex-servicemen will require employment-related services of some type. Of this total, better than half (58,000) will be Veterans of the Vietnam era. According to the latest estimate (March 1976), there were nearly 182,000 Vietnam-era veterans in the City's labor force; of this total, 10,900 were unemployed. The unemployment rate of such persons, 6.0 percent, was considerably under the jobless rate for all persons in the labor force, 10.7 percent.

APPENDIX B (cont'd)

Apparently, most Vietnam-era veterans in need of employment-related assistance are either discouraged workers who have dropped out of the labor force or workers with jobs that provide inadequate incomes.

About 80,000 persons in the Universe of Need are potential WIN applicants. These are heads of families, either unemployed or underemployed, who are receiving grants under the Aid to Dependent Children Act.

APPENDIX B (cont'd)

Table 9. UNIVERSE OF NEED
NEW YORK CITY, FISCAL YEAR 1977

	Number of individuals
Universe of Need	1,419,898
Poor	308,076
Disadvantaged	294,893
Other poor	13,183
Non-poor	1,111,822
Near-poor	337,497
All other non-poor	774,325
Unemployed and underutilized disadvantaged by category	294,893
Unemployed	39,158
Underutilized	255,735
Employed part-time for economic reasons	34,461
Employed full-time, but with family income at or below poverty level	49,094
Not in labor force but should be	172,180
Total number of different individuals unemployed	867,300
Potential WIN applicants	87,616

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APPENDIX C

RECENT MANPOWER DEVELOPMENTS

A. Wage and Salary Employment Developments

Nonfarm wage and salary employment in New York City totaled 3,195,000 in June 1976, an apparent increase of 6,000 jobs in a month. Further examination, shows, however, that when the settlement of the May strike of 10,000 apartment house building service workers is taken into consideration, a real drop of 3,700 in payroll employment took place between May and June. At this time of year, an expansion of payrolls usually occurs. Since 1957, the only years with a May-June decrease were 1975 and 1976.

Much has been said and written about economic recovery on a national scale. So far, New York City has experienced, at best, a minimal share of the upturn. In June 1969, employment in the City registered an all-time high of 3,844,000. Seven years later, as a result of two national recessions and one uninterrupted local recession, along with the flight from the City of many large firms, New York City has lost almost 650,000 jobs. In the past year alone, employment decreased by over 100,000.

The decline in New York's population does not mitigate the seriousness of this situation, since the working-age group did not decrease as fast as the total population. Actually, between 1970 and 1976, the number of City residents age 16 and over diminished by about 165,000, only one-fourth of the number of lost jobs.

Employment in the manufacturing sector shows signs of stabilizing, even though at a low level. From a January 1976 total of a shade less than 506,000, the lowest since comparable record-keeping began in 1947, the number of jobs in manufacturing increased sharply for two months, then fluctuated in a sawtooth fashion, increasing in June to nearly 528,000. The June-to-June drop was less than 4,000, the smallest for this period in eight years. Apparently, with employment in manufacturing down more than one-third since 1969, many of the remaining factory owners are finding that New York City's large pool of unemployed experienced workers gives them a good reason for staying here.

Employment in the hard goods sector of manufacturing increased by 2,500 between January and June of this year, to slightly more than 118,000 as a result of a small gain each month from January through May. There was no change in job level between May and June. While this upturn is less dramatic than that of the more volatile and seasonal soft goods sector, it brought employment in hard goods above last year's tally for three successive months. Prime sources of the job gains were the machinery industries, both electrical and nonelectrical, and the instruments group. The only hard goods industries to show an employment decline during the six-month period were fabricated metals and furniture and fixtures.

Employment in the nondurable goods sector followed the pattern of its largest component, the highly seasonal apparel industry, during the first half of 1976. Both increased sharply from January to March, sustained two small losses, and ended with a modest gain. From January to June, the soft goods sector scored a gain of almost 20,000 to approach 410,000 jobs. While this seasonal gain was the largest since 1969 and the June-to-June gap of 6,000 was the smallest since 1967-1968, the employment total for this portion of the job market was less than two-thirds of its size in 1969. The steady erosion of the City's job base gives economic planners very little on which to mount a recovery. Miscellaneous manufacturing increased employment substantially over the six-month period, as toy makers and precious jewelry and silverware manufacturers expanded their activities in anticipation of rising sales. Other gains were posted by the textile and leather groups, with the only soft goods industries to contract employment food and tobacco products.

While factory employment has suffered from foreign competition as well as from the flight of production out of New York City, the business downturn of recent years has been felt mainly by the nonmanufacturing sector. Employment in this sector has dropped since 1969 by almost 338,000 to 2,667,000. More than half of the decline, or 200,000, occurred in the past two years. Cutbacks in government employment, chiefly in local government, caused one-third of the two-year contraction, with job losses in trade responsible for one-fifth of the shrinkage. During the last seven years, employment in wholesale and retail trade has declined by about 125,000, due to the departure from the City of large wholesale distributors in search of lower operating costs and the flight to the suburbs of many middle-class families who had patronized stores forced to close because of dwindling sales.

During the past six months, employment in nonmanufacturing dropped sharply in February, increased for the next two months (largely because of the Easter season), dropped considerably in May, and then increased slightly in June to 2,667,000. This was 10,000 less than back in January and more than 100,000 below the figure for June 1975. With the arrival of milder weather seasonal employment increases occurred in construction as property owners made repairs and in finance-insurance-real estate as management increased staff for the refurbishing season. While jobs in wholesale trade increased by 2,200 over the half year, employment in retail establishments contracted by 1,300 over the same period. Government gave up almost 14,000 jobs since January as cutbacks in local government employment continued and Federal installations moved out of the City.

1. Manufacturing

a. Fabricated metal products

The fabricated metal products industry maintained a stable, but low level of employment during the first half of 1976. The job count fluctuated between 23,300 and 23,600, averaging 23,400, only 500 jobs below the comparable figure for 1975. Since most segments of this industry are closely related to construction activity which has been severely curtailed, it is understandable that its employment was not quite two-thirds of the 1969 total.

b. Non-electrical machinery

The non-electrical machinery industry has grown slowly but steadily during the first half of 1976, finishing with 16,700 jobs in June, 400 more than in January. During each of the last two months, it had more jobs than in the corresponding month of 1975. Most of the increase was due to expansion of production of business machinery and to the seasonal pickup in manufacturing of refrigeration and air-conditioning equipment.

c. Electrical machinery

The electrical machinery industry increased employment gradually from 30,100 in January to 30,900 in April, gave up 400 jobs in May, then regained 100 to bring the job count at mid-year to 30,600. Most of the January-April job gain took place in the electric lighting and wiring equipment segment, but by June, two lighting fixture manufacturers had shut down and another had moved out of the City, causing a loss of 100 jobs. Despite the interruption of growth, in every month of 1976, employment was ahead of the corresponding month of 1975, in both the larger and the smaller industry components.

d. Food and kindred products

During the first half of 1976, two large breweries and several smaller companies, including a bakery and a gourmet food processor, left the City because of high taxes and other operating costs as well as dissatisfaction with the conditions in City-constructed markets. As a result, employment in the food processing industry slipped to 34,500 in May, an all-time low, then, following the normal seasonal pattern, added 300 jobs in June. Between January and June, 800 jobs were lost, bringing both the May and June job counts in this industry to a level 2,800 below that in the corresponding months of 1975. As a result of the steady erosion of employment in New York's food industry, it now has only 56 percent of the jobs it had in 1969.

e. Textile mill products

The textile mill products industry, although operating at a low level, followed its normal seasonal pattern, showing an increase in employment in each month of 1976 to reach a total of 25,400 in June, a gain of 2,100 over the six months. Most of the upturn was due to job expansion in knitting mills, as sweaters and clothing made of knitted fabrics continued to be popular with both sexes. Over the half year, however, average employment in the industry was 300 behind that for the first half of 1975, and June-to-June comparison showed an annual decline of 900. Since 1969, employment has dropped about one-third, and, so far, shows no signs of a comeback.

f. Apparel and related products

Even at its currently depressed level, the apparel industry still dominates the manufacturing sector in New York City. In January 1976, employment in the apparel industry was 131,800, an increase of 1,500 over the preceding January. Although employment showed sharp growth in the first quarter, then a gradual leveling off in both 1975 and 1976, the increases in 1976 were smaller than those in the previous year. From June 1975, the job loss amounted to 1,500. The fact that this was the smallest June-to-June drop in three years gives scant comfort when it is seen that the City's largest manufacturing industry has lost almost 40 percent of its jobs since 1969.

g. Printing and publishing

The second largest manufacturing industry, printing and publishing, is much less volatile than apparel. During the first half of 1976, employment fluctuated between 89,500 and 90,900, with a pattern of expansion in the first quarter then a leveling off in the second quarter, in line with the course followed by its largest component industry, commercial printing. In spite of the continuing exodus of printing firms from the City (a large book publishing company expects to leave very soon), the annual job losses in the printing and publishing industry have been decreasing steadily, and employment shows signs of stabilizing at about 90,000. But that is less than three-quarters of the 1969 level.

h. Chemicals and allied products

The chemical industry, which has undergone steady attrition since 1969 that has resulted in a job loss of 15,000 to June of this year, performed well during 1976, albeit at a low level. After the late 1975 departure from the City of two firms with a combined payroll of 500, the chemical group increased its jobs by 300 in the first half of 1976, to 27,400. Unless the two additional companies, one huge and one small, that have announced plans to move, decide to stay, employment will drop further.

i. Miscellaneous manufacturing

Employment in miscellaneous manufacturing has been ahead of the corresponding month a year ago each month of the second quarter of 1976, with the job level at mid-year reaching 43,600. Part of the increase was due to expansion of several leading toy companies that find the existence of a large labor pool in New York City conducive to operating here. In every month of 1976, employment in the precious jewelry and silverware component was ahead of that in the corresponding month a year ago, as people continue to purchase gold and silver objects as a hedge against inflation.

2. Nonmanufacturing

a. Construction

Due to the near cessation of new housing starts as well as public works in New York City, employment in the construction industry dropped to 74,200 in June, about two-thirds of the 1969 level and an even smaller fraction of the 1971 peak. Three-fourths of the decline from the June peak has occurred in the past two years, when the City's fiscal crisis and business downturn forced the cancellation of plans for building new schools, housing projects and commercial facilities. During the first half of 1976, employment in construction followed its usual seasonal course, contracting during February, then gradually expanding as milder weather made repairs and renovations possible, and leveling off in June with a gain of 2,700 jobs over the six-month period. The annual gap of 12,300 in January became smaller with each successive month, ending with a June-to-June decline of 9,200 jobs.

b. Transportation and public utilities

Employment in this division of the City's economy was very stable during the first half of 1976, with a variation of only 1,100 jobs from 262,600 in March to 261,500 in May and June. This was more than 7,000 below the level of the previous June. This annual loss was divided almost equally between truck and taxi transportation and telephone and telegraph communication, as half a dozen large companies in these industries left the City to lower operating costs, while another six closed down. The employment loss from the 1969 level was 21 percent. So far, however, there is no sign that the jobs lost through bankruptcies and out-of-City moves will be recovered in the near future.

c. Wholesale and retail trade

The creditable performance of the trade division of the City's economy may possibly be attributed to preparations for visitors to the Bicentennial celebration and the National Democratic Convention. After the usual seasonal job loss in February, employment increased steadily to 629,500 in June. The year-to-year drop of 6,500 was the smallest June-to-June employment loss since 1969 and brought the job total in wholesale and retail trade to 83 percent of the June 1969 level. More than the total six-month gain of 1,000 jobs occurred in the wholesale sector which serves an area much larger than the City; over half of the 2,200 gain posted in wholesale trade was negated by the loss of 1,300 jobs in the more localized retail segment.

d. Finance-insurance-real estate

The finance-insurance-real estate division in New York City performed well during the first half of 1976, except for the month of May, when a massive strike of apartment house building service workers idled 10,000 and caused a net employment drop of nearly that amount.

If there had been no strike, employment would have increased every month since February. From January, division-wide employment increased by 2,500 to 421,200; this represented an annual loss of 2,200 and a drop of 48,000, slightly more than 10 percent, from the June 1969 level. Two of the division's major components participated in the six-month upturn, namely, security and commodity brokers and realty firms. The increase in the former was noteworthy because it occurred in spite of the City's loss of several brokerage houses and the industry-wide accelerated use of automated office procedures. Employment in banking, one of the few industries in the City to score an employment gain since 1972, gave up 700 jobs since January to stand at 138,000 in June; this was 500 less than a year earlier, but a surprising 14,000 more than in June 1969. Local banks have steadily increased personnel as a result of providing their customers with new and additional services.

e. Services and miscellaneous

Employment in the largest sector of nonmanufacturing, services increased in each of the months from February to April 1976, then dropped during the last two months, finishing the half year at 763,200, a loss of 1,600 jobs since January. The June job level was 6,000 below the corresponding figure for 1975 and 24,000 behind that for 1969. This industry division, which includes nongovernmental health and educational services, amusements, as well as business and personal services, for a time seemed immune to the job cuts plaguing the rest of the City's industries. It increased employment from 1969 to 1970, cut back sharply in 1971 and added jobs the next two years. In the past three years, however, the business slowdown has affected both personal and business expenditures as well as charitable contributions to the arts and social services. Consequently, employment in services is declining, but the 1975-1976 job loss was less than half of the previous year's.

Employment in year-round hotels was stable in January and February, increased by 700 by May; then dropped in June to 22,000 after the closing of one large hotel. Further closings have been announced for the near future, so that hotel employment, already down by a third from the 1969 level, will probably decrease even further. Employment in nongovernmental educational services experienced a normal seasonal decline in June, bringing the job count down to 68,000. The shrinkage of the school-age population has probably contributed substantially to the employment loss of 8,000 jobs in education since 1969; the money squeeze has also taken its toll.

Prepaid health insurance plans, as well as government expenditures for Medicare and Medicaid have made the health industries the principal growth segment of the City's economy in recent years. Since 1969, the number of jobs in medical and other health services has grown by almost a third to 186,500, but has shown signs of leveling off during the past year. Employment in nongovernmental hospitals, which was 104,000 in 1969, reached a peak of 120,000 in 1975, and dropped below 119,000 in May and June of 1976 as inflationary pressures caused several private hospitals to close.

f. Government

The most serious employment problems in the City in 1976 were those of the public sector. This area, which accounts for nearly a sixth of the total job count in the City, provided a goal to which the young person looking for employment security could aspire. Severe cutbacks caused by transfer of Federal installations and the fiscal crisis in New York City have not only displaced many workers who considered themselves secure, but have also limited the opportunities for new entrants to the labor market. Total government employment dropped to 516,000 in June 1976, a loss of 14,000 in the half year and of 71,000 from the previous June. Almost half of the January-June loss was due to cutbacks on Federal employment, which has posted consistent year-to-year declines from the June 1970 high of 114,000 to 91,000 in June 1975 and to 86,000 this June. Most of the June 1975-June 1976 job loss, however, can be ascribed to the job cutbacks by the City of New York, dictated by the austerity program followed since the City government barely escaped default in late 1975. Since June of 1975, total employment in municipal agencies has dropped by 65,000, equally divided between educational and other divisions. Further cutbacks of considerable size have been announced, so that the present total of 382,000 jobs cannot be considered the bottom of the downslide.

B. Resident Jobholders

During the first half of 1976, employment of New York City residents was at the lowest level since 1970, when the current data series began. From 2,692,000 in January of this year, the number of jobholders residing in the City dropped to an all-time low of 2,681,000 in February, then gradually climbed to 2,708,000 in May, where it hovered in June. The six-month average of employed City-dwellers, 2,698,000, was 94,000 lower than the corresponding figure for 1975 and 455,000 below the average for the first half of 1970. Among the causes of this continuing decline were the City's budgetary crisis and the ensuing mass layoffs, coupled with the exodus from New York City of many firms, taking with them a huge number of jobs and a smaller contingent of employees. Competition of foreign factories with our local producers, especially in the important apparel industries, and the reduced importance of this City as an international port have also contributed to the decreasing number of City dwellers with jobs. The City's population has diminished but by far less than the number of jobs.

APPENDIX D

Proposed VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7001	Multi	Planning, Research, Development, Evaluation, Monitoring & Implementation of Occupational Education Programs (R)	General DNA	Headquarters	1	427,070	p. 24, 26, 34, 36, 37, 38, 39, 42
7002	Alternate Work Study	Training Program for Child Care Aides (R)	75 Secondary Disadvantaged	High School Redirection and approximately 6 day care centers	102B	32,504	p. 17
7003	Multi	Careers for Children C4C (R)	1000 Elementary Disadvantaged	Community School Districts 11, 18	4A	75,385	p. 3
7004	Multi	Enterprise Experience (R)	2800 I.S./ J.H.S	Community School Districts 5,6,8,15, 18,19,27,29,30	4A	42,500	p. 3
7005	Multi	Vocational Work Study (R)	1000 Secondary Disadvantaged Handicapped	Various comprehensive, vocational, academic high schools, occupational training centers, Bureau CRMD,	H	448.474	p. 16, 42
7006	Guidance	Coordinator of Occupational Guidance Programs (R)	Direct: 5000 Secondary Indirect: 300,000 Secondary, general & disadvantaged	Headquarters	1	50,378	p. 2, 23, 20
7007	Multi	City as School Career Exploration Project (R)	275 Secondary General	New York City and its career learning ex- eri[illegible]s	1	31,798	p. 17

APPENDIX D (Cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal Reference-Annual Plan FY'76-77
7008	Guidance	High School College Continuum (R)	3300 Disadvantaged Secondary	Walton H.S. (X), Roosevelt H.S. (K), Hughes H.S. (M), N.Y.C. Community College, Bronx Community College	6	159,104	p. 20, 21
7009	Multi	After-School Occupational Skills Program (R)	5000 Disadvantaged Secondary	25 Public High Schools	102B	704,172	p. 14
7010	Multi	Alternative Occupational Facilities To Meet Manpower Needs (R)	200 Disadvantaged Secondary	Various Private - Non-Profit Vocational Schools	4A7	33,466	p. 43
7011	Special Education	DSEPPS-Center for Development of Special Vocational Education Programs (R)	Handicapped Disadvantaged	131 Livingston St.	4B	51,217	p. 45,46,49
7012	Special Education	Health Occupations Training Program for Brain Injured and Physically Handicapped Students (R)	75 Handicapped Secondary	Francis Lewis H.S.	4B	36,414	p. 46,47
7013	Special Education	Vocational Evaluation and Job Placement Program for Hearing Handicapped and Language Impaired Adults (R)	125 Adult Handicapped	415 East 88 Street N.Y.C. 10028	4B3	114,004	p. 47,50

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7014	Special Education	City-Wide Integration of the Handicapped in Vocational Training (R)	600 Secondary Handicapped	Westinghouse H.S., NY School of Printing, McKee Voc. H.S., Food Trades H.S., Automotive H.S., Thomas Edison H.S., Queens Voc. H.S., Grover Cleveland H.S.	4B	180,616	p. 10,44,45,46
7015	Special Education	Adult Job Placement and Referral Program (N)	200 Adult Handicapped	City-Wide	4B3	73,714	p. 47,50
7016	Special Education	Model Program in Occupational and Career Education for Mentally Retarded Youngsters (N)	45 Secondary Handicapped	Bronx Rehabilitation Center	4B	70,873	p. 47
7017	Special Education	Vocational Mainstreaming in Building Maintenance for Brain Injured Students (N)	32 Secondary Handicapped	Thomas Edison Vocational H.S.	4B	70,873	p. 45,46
7018	Multi	High School Human Service Internships (R)	200 Secondary Disadvantaged	Administrative Office 250 Church Street New York City	102B	105,994	p. 17
7019	Multi	Metric Instructional Models and Teacher Training	Secondary #DNA	110 Livingston Street, Automotive, Aviation, Manhattan Voc.-Tech. High School	1	30,217	p. 9
7020	Multi	Occupational Curriculum Coordination (R)	Secondary General	110 Livingston Street Brooklyn	8E	74,067	p. 10,29

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7021	Agriculture	Agricultural Career Education-Ornamental Horticulture (N)	180 Secondary Disadvantaged	Martin Luther King HS, DeWitt Clinton HS, Thomas Jefferson HS	4A	49,542	p. 10
7022	Coop Ed.	Improving and Strengthening Cooperative Education (R)	7500+ Secondary Disadvantaged	Headquarters, all participating High Schools,	G	282,097	p. 16,17a
7023	Coop Ed	Job Development Program (R)	7500 Secondary Disadvantaged	Headquarters, Cooperative Education Bureau and Job Sites	G	169,912	p. 16,17a
7024	Coop Ed	On-the-Job Training in Ornamental Horticulture, Landscaping (R)	30 Secondary Disadvantaged	N.Y. Botanical Garden, Christopher Columbus H.S. and others	G	31,950	p. 16
7026	Coop Ed	On-the-Job Training as Para-Medical Aides (Medical Aides and Medical Records Aides) (R)	30 Secondary Disadvantaged H.S. Seniors	Roosevelt Hospital and Others - George Washington H.S., Louis D. Brandeis and others	G	31,950	p. 16
7027	Coop Ed	On-the-Job Training as Social Health Technician Aides (R)	30 Secondary	Karen Horney Clinic, Florence Nightingale Nursing Home, Headstart Centers, Mabel Dean Bacon Voc. H.S., Louis D. Brandeis HS and others	G	31,950	p. 16

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7028	Agriculture	Agricultural Career Education-Central Coordination of all Programs: Farm Production & Management & Ornamental Horticulture (R)	2140 Secondary General	15 High Schools & P.S.25R, 186-X, Hillside (Queens), Lt. J.P. Kennedy Jr. Home (Bronx), Bronx Rehabilitation Center	1	86,022	p. 4,10,19
7029	Agriculture	Agricultural Career Education: Conservation, Oceanography, and Animal Care (R)	700 Secondary General	Martin Van Buren H.S. (R), Beach Channel H.S. (R), John Bowne H.S. (R), Tottenville H.S. John Dewey H.S. (N)	1	101,400	p. 10
7030	Health	Health Careers Coordinating Unit (R)	9700 Secondary Adult	Board of Education 131 Livingston Street Brooklyn	1	90,996	p. 4, 10a, 15, 25
7031	Health	Health Careers Cluster: Gerontology, Thanatology, Mental Health Aide (N)	90 Secondary, Disadvantaged General	Seward Park H.S., St. Roses Home, Bellevue, Karen Horney Clinic	1	55,853	p. 9
7032	Health	Health Occupations Education: Health Services (R)	400 Secondary General	Bay Ridge, Evander Childs, Martin Van Buren, Taft, DeWitt Clinton, Jamaica, Seward Park, Tottenville, Curtis, JHS142	4A	115,154	p. 9
7033	Multi	Career Development and Job Placement Service (R)	400 Secondary Disadvantaged	Lower East Side Prep, 169 William Street, New York 10038	4A	30,421	p. 17
7034	Multi	Self-Paced (Student) Occupational Training (N)	Secondary	Headquarters School [illegible]es	8E	54,639	p. 29

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7035	Home Economics Occupational	Occupational Education for Disadvantaged Secondary Students, Home Economics High School (R)	1050 Secondary Disadvantaged	36 Programs, Comprehensive and Academic High Schools	4A	121,449	p. 5,9
7036	Home Economics Occupational	Occupational Education for Disadvantaged Secondary Students, Home Economics Career Awareness and JHS Career Exploration (R)	2400 IS/JHS/ Elem.	127X, 141Q, 61Q, 115X, 201M, 238Q, 88K, 201K, 167M, 7R plus others	4A	45,065	p. 5, 24
7038	Trade & Tech.	Trade & Technical Skills Training for Disadvantaged Youth (N)	1650 Secondary Disadvantaged	10 High Schools	4A	239,589	p. 11,13
7039	Trade & Tech.	Extended Trade & Technical Programs for Disadvantaged Youth (R)	292+ Secondary Disadvantaged	15 High Schools and Bureau of Trade and Technical Education	4A	264,280	p. 11,13,19
7040	Trade & Tech.	Extended Trade & Technical Programs for High School Students (R)	265+ Secondary General	5 High Schools and Bureau of Trade & Technical Education	1	130,950	p. 11,13

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7041	Trade & Tech.	Trade & Technical Programs for High School Students (N)	249 Secondary General	4 High Schools	1	113,407	p. 11
7042	Multi	The World of Work (Project 25-District 25) (R)	125 Secondary	J168, 158-40 76th Rd., Flushing, N.Y. 11366 (3rd Floor)	4A	35,048	p. 5
7043	Trade & Tech.	Television Studio Production Technician Skills Training Program (N)	50 Secondary Disadvantaged	Edward R. Murrow High School, Brooklyn	4A	16,756	p. 11
7044	Multi	Shared Instruction Programs (R)	1500 Secondary General	26 Vocational-Technical & Academic Comprehensive High Schools	1	364,491	p. 10, 12, 14
7045	Multi	Preparation for Occupations Model (R) (PROM)	20,045 Elementary & Secondary General	District 12, Evander Childs, Boys & Girls H.S., and 14 new schools	1	148,357	p. 1, 2, 23,24,26
7046	Alternate Work-Study	Work Experience Job Development Center at Martin Luther King High School (R)	450 Secondary Disadvantaged	Martin Luther King High School	4A	43,186	p. 18
7047	Special Education	Evening School, Building Maintenance for Handicapped Adults Brain Injured, Hearing and Language (N)	24 Adult Hearing-Impaired & other Handicapped	Queens Vocational High School	4B(3)	13,998	p. 45,46

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal #Reference-Annual Plan FY'76-77
7048	Special Education	Orientation and Work Experience Training for Secondary Handicapped (N)	300 Secondary Handicapped	131 Livingston Street, Brooklyn	4B	185,293	p. 44,45,46,47
7049	Special Education	Vocational Assessment and Occupational Training Program for Institutionalized Adolescents (R)	140 Secondary Emotionally Disturbed	Lt. Joseph P. Kennedy, Jr. Home	4B	54,794	p. 48
7050	Special Education	Clerical Occupational Training Program for EMR High School Students (N)	180 High School EMR	George Washington HS (M), John Jay HS (K), Adlai Stevenson HS (X), Newtown HS (Q)	4B	30,688	p. 46,48,49
7051	Multi	Follow-up Studies of Students Denied Admission to NYC Vocational High Schools (R)	15,600 Secondary Disadvantaged	DNA	4A	49,636	p. 23
7052	Special Education	Occupational Training in food preparation skills for emotionally disturbed adolescents (R)	50 Secondary Handicapped	P.S. 106M Bellevue Psychiatric Hospital	4B	34,945	p. 48
7053	Special Education	Continuing Vocational Training for Mentally Retarded Adults (R)	50 Adult Handicapped	Charles Evans Hughes H.S. - Metropolitan Evening Trade School	4B(3)	34,030	p. 47
7054	Special Education	Occupational Training for Multiple Handicapped Students	80 Secondary Multiply Handicapped	CMHC-M CMHC-Q	4B	76,310	p. 48

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7055	Trade & Tech.	Reorg. Curric. at Automotive High School (N)	175-200 Secondary Disadvantaged	Automotive High School	4A	36,500	p. 11
7056	Business Education	Business Office & Distributive Occupations for Disadvantaged Youth (N)	12,140 Disadvantaged Secondary	51 sites in all boroughs	4A	449,280	p. 6, 7, 8, 19
7057	Business Education	Business Occupations & Data Process Training for High School Youth (N)	1330 General Secondary	17 High Schools	1	147,435	p. 6, 7
7058	Multi	Bronx Career Counseling Resource Center (R)	15,000 Disadvantaged Secondary	1030A Southern Blvd.	4A	322,647	p. 12, 22
7059	Multi	Study for Competencies Needed for Entry-Level Employment (R)	Disadvantaged Adults #DNA	110 Livingston Street	4A3	52,304	p. 10, 43
7060	Multi	Satellite Academy for Career Education (R)	650 Disadvantaged Secondary	129 Fulton St., M; 132 Nassau St., M; 91-14 Merrick Blvd., Jamaica 332 E. 149th St., Bx.	4A	64,916	p. 17
7061	BAVI	A Work Experience for Students in Multi-Media Production - Part II (R)	150 General Secondary	BAVI - 131 Livingston BRT - 112 Tillary St.	1	31,152	p. 16
7062	Trade & Tech.	Air Ground Support Vehicle Operation (R)	140 Secondary General	Aviation High School East N.Y. Voc'l. HS	1	33,165	p. 10

APPENDIX D (cont'd)

SUMMARY

VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/ Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7063	Continuing Education	Consumer Education Coordinating Unit (N)	Disadvantaged Secondary & Adult #DNA	City-wide and 131 Livingston Street	F	54,013	p. 43
7064	Multi	Identification of Disadvantaged Students for Secondary/Post-Secondary Technical Studies (R)	150 Disadvantaged Secondary	6 Vocational High Schools	4A	17,786	p. 35
7065	Continuing Education	Adult Consumer & Homemaking Education (R)	22,010 Disadvantaged Adults	110 Livingston Street Albany ACE Center Staten Island ACE Center Red Hook ACE Center East Harlem ACE Center West Harlem ACE Center Monterey ACE Center Melrose ACE Center Queens ACE Center Wyckoff Gardens Center Chinatown ACE Center	F	623,354	p.43
7066	Research	Liaison for Post-Secondary Regional Occupation Education Planning	Post Secondary General #DNA	Office of Career Education, City University and Community College	2	11,862	p. 36

APPENDIX D (cont'd)

Proposed VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7067	Health	Medical Laboratory Assisting (N)	Secondary 50	F.D.Roosevelt H.S.	4A	41,586	p. 9
7068	Health	Strengthening the Practical Nursing Program (R)	Secondary 700	11 High Schools	4A	67,454	p. 15
7069	Multi	Related Instruction-Apprenticeship Training (N)	Adult 5000	N.Y.C. Vocational H.S. & Annexes	3	259,173	p. 42
7071	Multi	Admin. Unit for Coordination of all Adult Occupational Education (R)	Adult	347 Baltic Street	3	199,009	p. 40
7072	Evening Trade Schools	Pre-Employment Program (R)	Adult 15000	N.Y.C. Vocational H.S. & Annexes	3	1,527,734	p. 41, 42
7073	Multi	Business/Office Skills Program for Disadvantaged Adults (R)	Adult 4200	N.Y.C. High Schools & Intermediate Schools	4A3	537,075	p. 42
7074	Multi	Career Training in Interior Architecture and Design (N)	Secondary 68	South Shore H.S.	1	34,711	p. 12
7075	Multi	Start-up (R)	Adult 6000	Vocational H.S's Manpower Centers, & Annexes	3	383,489	p. 12a, 41

APPENDIX D (cont'd)

Proposed VEA Programs - Fiscal Year 1976-77

Proposal	Discipline/Area	Program Description (R or N)	Pop. Served Level and Number	Facilities To Be Used	VEA Purpose	Proposed Preliminary Budget	Planning Goal *Reference-Annual Plan FY'76-77
7076	Multi	New York Arts Career Campus "NYACC" (N)	Secondary 625	5 High Schools	1	57,128	p. 12a
7077	Multi	Bilingual Shared Instruction Vocational Training (N)	Secondary 72	Westinghouse & East New York Vocational High School	4A	156,502	p. 14, 28
7078	Continuing Ed	Neighborhood Adult Outreach Program (N)	Adult 24,000	City Wide Board of Education	F	249,716	p. 43
7079	Multi	In-Plant Quick Copy Reproduction (N)	Secondary 100	N.Y. School of Printing	4A	47,340	p. 12a
7080	T & T	Updating Occupational Training Programs for Disadvantaged Adults (R)	Adult 5000	All Vocational H.S.'s	4A3	474,000	p. 41
7081	Multi	Articulated Continuum Technology Program (N)	Secondary/Post Secondary	N.Y.C. Community College, Grady & Westinghouse H.S.	D	90,559	p. 31
7082	Co-op	Strengthening interdisciplinary teaching of Co-op Ed Students (N)			G		p. 16
7083	Co-op	School Work Experience Ed., Program-Co-op Ed. (N)			G		p. 16
7084	Co-op	Clinical Experiences for Practical Nursing Students (N)	Secondary	Staten Island Methodist, Queens General, St. John's Episcopal & Other Hospitals.	4A	53,168	p. 16

APPENDIX E

Additional Apportionment Aid Plan for Occupational Education in New York City

The FY '77 Additional Apportionment Aid Plan for Occupational Education has been developed within prescribed guidelines to reflect the spectrum of program offerings and facilities in existence in the New York City High Schools. This plan is directed towards the achievement of the GOAL:

> To provide a range of Occupational Education options, in skills training and related technical programs that are related to 1) employment requirements and availability, and 2) the preparation of students for advanced training in occupational and technical areas.

The four OBJECTIVES associated with this goal are noted below but are also presented in companion tables designated according to specific objectives:

> OBJECTIVE I: To extend Occupational Education programs to 17,500 enrollees in skills training and related technical subjects at the City's multi-trade Vocational High Schools.
>
> OBJECTIVE II: To provide opportunities for skills and technical training to 3,400 enrollees in Agriculture, Trade and Technical, and Health Careers programs of the City's Academic and Comprehensive High Schools.
>
> OBJECTIVE III: To maintain programs of skills and technical trainin for 10,100 enrollees in a broad spectrum of course related to the focus of Unit Trade Schools.
>
> OBJECTIVE IV: To continue and expand efforts in occupation-related technical programs for approximately 5,000 enrollees in courses at a technical high school, the Brooklyn Technical High School.

The table associated with each Objective defines specific programs, facilities involved and instructional costs proposed for the Additional Apportionment Aid Plan. The costs reflect only direct salaries of teachers and supervisors. No attempt has been made to include other student-related costs as fringe benefits, supplies, equipment, transportation or related administrative and facility costs.

In summary, the proposed Additional Apportionment Aid Plan for Occupational Education has associated costs of $12,026,000, distributed as follows:

OBJECTIVE I:	Programs of Multi-Trade Vocational High Schools	$6,566,000
OBJECTIVE II:	Programs of Academic and Comprehensive High Schools	$ 945,000

APPENDIX E (Cont'd.)

OBJECTIVE III:	Programs of Unit Trade High Schools	$3,765,000
OBJECTIVE IV:	Programs of a Technical High School (Brooklyn Technical High School)	$ 750,000

This Additional Apportionment Aid Plan represents a minor portion of tax levy costs for eligible Occupational Education programs of the Board of Education of New York City. The selected programs of the Plan are designated to indicate specific programs where aggregate salary costs are in approximate correspondence with anticipated claims to the State relative to the Additional Apportionment Aid for Occupational Education. Actual claims for reimbursement will be associated with the 43,601 grade 10-12 students involved in programs in areas of Trade and Industry, Technical, Healh Careers and Agricultural programs. Details of student count, according to types of programs and high schools, are shown in the following table:

1975-76 Student Registers in Eligible Occupational Education Programs

	Trade & Industry	Technical	Health Careers	Agriculture	Total
Comprehensive & Academic High Schools					
Manhattan	694	50	1,143	104	1,991
Bronx	365	-	1,716	173	2,254
Brooklyn	1,300	-	3,469	266	5,035
Queens	438	-	2,112	627	3,177
Richmond	568	-	638	114	1,320
Sub-Totals	3,365	50	9,078	1,284	13,777
Vocational High Schools					
Manhattan	7,230	373	524	-	8,127
Bronx	2,570	313	716	-	3,599
Brooklyn	7,172	868	330	-	8,370
Queens	3,875	687	122	-	4,684
Richmond	586	145	-	-	731
Sub-Totals	21,433	2,386	1,692	-	25,511
Technical High Schools					
Bronx	-	4,103	-	-	4,103
Alternative High School Programs					
Manhattan	13	-	150	-	163
Bronx	2	-	-	-	2
Brooklyn	32	-	3	1	36
Queens	5	-	-	-	5
Richmond	4	-	-	-	4
	56		153	1	210
Totals	24,854	6,539	10,923	1,285	43,601

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APPENDIX E-1

OBJECTIVE I. *To extend Occupational Education programs to 17,500 enrollees in skills training and related technical subjects at the City Multi-Trade Vocational High Schools.*

MAJOR ACTIVITY: *Maximize the Use of Facilities of Multi-Trade Vocational High Schools to Increase Student Options of Skills Training and Related Technical Programs.*

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Automotive Mechanics and Related Technology	A. E. Smith	901	417		
	W. Grady	474	212		
	T. Edison	247	199		
	R. McKee	232	117		
		1,854	945	37.4	Options of training in multiple skills areas will assist students in making informed career choices.
Automatic Heating & Air Conditioning, and Related Technology	A. E.Smith	125	62		
	W. Grady	323	143		
	T. Edison	100	70		
		548	275	11.0	
Carpentry, Woodworking & Cabinet Making, and Related Technology	G. Westinghouse	284	126		Students will receive appropriate training in trades where there are job openings.
	A.E. Smith	547	239		
	W. Grady	318	150		
	E. Whitney	143	91		
	R. McKee	175	92		
	T. Edison	196	159		
	A. Hamilton	236	138		Training will provide entry skills for students, as well as preparation for advanced training, e.g. in post-secondary schools.
		1,899	995	39.6	

APPENDIX E-1 (cont'd)

OBJECTIVE I. (Continued)

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Cosmetology and Related Technology	M.D. Bacon	242	121		
	E. Whitney	147	93		See "Expected Outcomes" on page
	R. McKee	218	101		
		607	315	12.5	
Drafting (Architectural, Electrical, Mechanical, and Technical)	A.E. Smith	152	75		
	W. Grady	87	16		
	G. Westinghouse	128	57		
	A. Hamilton	243	107		
		610	255	10.1	
Electrical Installation and Practice, and Related Technology	W. Grady	635	268		
	T. Edison	295	182		
	R. McKee	264	121		
	G. Westinghouse	364	159		
	A. Hamilton	237	161		
	E. Whitney	120	99		
		1,915	990	39.2	

APPENDIX E-1 (cont'd)

OBJECTIVE I. (Continued)

Program	High School Facility	Anticipated Enrollment	Proposed "399 Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Electro-Mechanical Trades, and Related Technology	G. Westinghouse	142	62		
	E. Whitney	95	133		See "Expected Outcomes" on page
		237	195	7.8	
Jewelry Making	G. Westinghouse	194	77	3.1	
Machine Shop, and Related Technology	W. Grady	126	57		
	T. Edison	144	91		
	R. McKee	97	56		
	A. Hamilton	78	47		
	E. Whitney	45	39		
		490	290	11.5	
Plumbing, and Related Technology	A.E. Smith	175	80		
	T. Edison	64	62		
	R. McKee	123	78		
		362	220	8.8	

OBJECTIVE I. (Continued)

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Practical Nursing, and Related Technology	E.Whitney	232	98		
	M.D. Bacon	220	87		
		452	185	7.4	See "Expected Outcomes" on page
Radio & TV Mechanics, and Related Technology	G. Westinghouse	436	272		
	E. Whitney	86	62		
	W. Grady	228	116		
		750	450	17.8	
OBJECTIVE I	Totals	9,918	5,192	206.2	

APPENDIX E-2

OBJECTIVE II. *To provide opportunities for skills and technical training to 3,400 enrollees in Agriculture, Trade and Technical, and Health Careers programs of the City's Academic and Comprehensive High Schools.*

MAJOR ACTIVITY: *Maintain and Expand Opportunities for Skills and Technical Training for Students in Academic and Comprehensive High Schools.*

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Agriculture and Related Programs					
Ornamental Horticulture	B. Franklin	99	36		
	M. Van Buren	106	27		
		205	63	2.5	
Conservation	M. Van Buren	64	32	1.3	Students will have increased opportunities to develop marketable skills and to expand their knowledge of career opportunities and employment requirements.
Animal Care	DeWitt Clinton	166	52	2.1	
	Sub-Totals	435	147	5.9	
Trade and Technical Programs					
Technical Electronics and Shops	C.E. Hughes	50	40	1.6	
Cosmetology	S.J. Hale	397	92	3.7	
Auto Mechanics	J.F. Kennedy	282	75		
	Tottenville	161	86		
		443	161	6.4	
	Sub-Totals	890	293	11.7	

APPENDIX E-2 (cont'd)

OBJECTIVE II. (Continued)

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Health Careers Programs					
Dental Office Assistant	C. Barton	175	77	3.1	See "Expected Outcomes" on page
Phys., Medical, Aux. Health Assts. & Nurses Aide Program	S.J. Hale	198	112		
	Washington Irving	46	21		
	C. Barton	369	121		
		613	254	10.0	
Practical Nursing	C. Barton	380	98		
	Washington Irving	196	87		
		576	185	7.4	
	Sub-Totals	1,364	516	20.5	
OBJECTIVE II	Totals	2,689	956	38.1	

APPENDIX E-3

OBJECTIVE III. To maintain programs of skills and technical training for 10,100 students in a broad spectrum of courses at Unit Trade Schools: Aviation High School, Automotive High School, High School of Fashion Industries, and High School of Printing.

MAJOR ACTIVITY: Maintain a broad range of skills training and related technical offerings to provide students with a high level of skills competency in Aviation, Automotive, Fashion and Printing Trades.

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Aviation Trades and Related Technology					
Aviation Mechanics	Aviation	2,532	1,605		Students will achieve a high level of skills competency in Aviation, Automotive, Fashion, and Printing trades.
Blueprint		367	61		
Mechanical Drafting		32	10		
Sheet Metal Work		466	259		
	Totals	3,397	1,935	76.8	
Automotive Trades and Related Technology					
Auto Mechanics, Inc. Welding	Automotive	1,028	631		Graduating students, as well as those terminating their education prior to graduation, will develop skills for entry level employment.
Auto Body		259	166		
Machine Shop		137	61		
Blueprint Reading		183	30		
Driver Education		263	96		
	Totals	1,870	984	39.0	
Fashion Trades and Related Technology					
Fashion Design & Garment Pattern Making	Fashion Industries	1,312	525		
Interior Decoration		130	77		
Fashion Merch., Display		599	112		
Men's & Ladies' Tailoring		127	61		
Fur Cutting		90	46		

(Continued)

APPENDIX E-3 (cont'd)

OBJECTIVE III. (Continued)

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Fashion Trades and Related Technology (Continued)					
Fashion Photography	Fashion Industries	64	30		See "Expected Outcomes" on page
Fashion Design Art/Fashion Illustration		466	124		
Jewelry Design		12	16		
Applied Textiles		207	57		
	Totals	3,007	1,048	41.4	
Printing Trades and Related Technology					
Letter Press	Printing	706	389		
Offset		817	433		
Bookbinding		31	31		
Journalism		187	82		
	Totals	1,741	935	37.1	
OBJECTIVE III TOTALS		10,015	4,902	194.3	

APPENDIX E-4

OBJECTIVE IV. *To continue and expand efforts in occupation-related technical programs for approximately 5,000 enrollees in courses at a technical high school, the Brooklyn Technical High School.*

MAJOR ACTIVITY: *Provide Exposure to Basic and Diversified Technical Programs and Related Practical Experience, Including:*

Program	High School Facility	Anticipated Enrollment	Proposed "399" Cost ($M)	No. Equiv. Tchrs. and Supervisors	Expected Outcomes
Aero Design and Laboratories	Brooklyn Technical	290	81		
Strength of Materials and Structural Shop		453	101		Students will receive high quality training and basic knowledges for advanced training in technical and/or occupational areas.
Surveying		61	16		
Architectural and Technical Drawing		1,014	134		
Building Construction		99	40		
Electrical and Electronics Programs		1,808	293		Students will be prepared for employment in growing technical job markets.
Foundry and Pattern Making		71	16		
Industrial Design (Ceramics)		64	18		
Machine Shop		1,072	256		
Mechanical and Inspection Shops		37	8		
Machine Design		39	13		
OBJECTIVE IV	Totals	5,008	976	38.6	

APPENDIX F

Occupational Training for Secondary Non-Public High School Students

There are approximately 88 non-public high schools in operation in New York City. These schools serve some 60,935 students (Appendix Tables VII, VIII, IX) and of these, over 21,300 (35%) receive training in some type of occupational courses.

Occupational Education Enrollments in Non-Public Secondary Schools

1975-76

	Number of Schools	Number of Enrollments
Manhattan	23	3,630
Richmond	9	1,005
Brooklyn	21	4,714
Queens	16	6,322
Bronx	19	5,623
Total	88	21,349

Although course enrollments are not available, it is estimated that at least 90% of the students are involved in business and office skills programs. There are a number of health-related programs which probably account for most of the balance of the students. However, some of the schools also offer courses as: Cosmetology, Computer Programming, Fashion Technology and Photography.

It is presumed that very few of the non-public school students are taking the occupational education programs as preparation for entry-level employment.

A number of students from the non-public schools have received a wide variety of skills training courses in the After-School Occupational Skills Program on a twice-a-week or Saturday schedule. As many as 500 private school students have been involved. With the growing interest and emphasis on the advantages of specialized skills, it is more likely that even the college-bound population in the private schools will opt for increased skills training opportunity, and will press for such training in the private as well as the public sector.

APPENDIX TABLE XII

THE PRIVATE SECTOR: New York City Occupational Training Offerings

Course Title	Schools Where Offered: By Borough
Agriculture	
Floral Design*	
Horticulture*	
Dog Grooming	3-M
Business and Office Education	
Business Skills	4-M
Clerical Skills	1-M
Computer Operations	1-M
Computer Programming	5-M
Data Processing	3-M
Digital Computing	1-M
Foreign-Language Secretary	2-M
IBM Machines	2-M
Keypunch	2-M, 1-X
Receptionist	2-M, 1-X
Speed Writing*	
Stenotype	3-M
Secretarial	7-M
Typist	1-X
Distributive Education	
Accounting	2-M
Advertising	2-M
Bookkeeping	1-M
Claims Adjusting	2-M**
Commodity Future*	**
Contracting*	
Credit and Finance	1-M
Credit Management*	
Estimating*	
Finance and Banking*	
Hotel/Motel Management	1-M
Income Tax*	
Insurance Adjusting	2-M**
Merchandising	2-M
Real Estate	**
Transportation and Traffic Management	
Travel Agent*	

* Not offered by any of the 97 schools with either manpower contracts and/or N.A.T.S. accreditation.

** Not offered in public secondary or adult occupational training

M=Manhattan, K=Brooklyn, X=Bronx, Q=Queens, R=Richmond

APPENDIX TABLE XII (cont'd)

Course Title	Schools Where Offered: By Borough
Health Services	
Child Care*	
Dental Assistant	1-M, 1-Q
Dental Technology	1-Q, 3-M
Dietician Training	1-M
E.E.G. Technician	1-Q
Histology Technician	3-M, 1-Q
Massage	1-M
Medical Assistant	4-M, 1-Q
Medical Laboratory Assistant	2-M, 2-Q
Medical Secretary	4-M, 1-Q
Medical Technology	3-M, 1-Q
Nurses' Aide	1-M
Pediatric and Geriatric Care	1-M, 1-K
Photography Medical*	
Trade, Industry, and Service Education	
Air Conditioning and Refrigeration	3-M, 2-K
Airline Ground Control*	
Art (Advertising, Commercial, Graphic Illustration)	1-M
Barbering	3-M, 1-X**
Bartending*	
Beauty Culture/Cosmetology	4-M, 2-K, 2-Q, 3-X
Broadcasting Technology	
Building and Plant Management	1-M, 1-K
Camera Repair*	
Clothes Pressing*	
Computer Technician	1-M
Diamond Setting*	**
Drafting (architectural, electrical, electronics, industrial, mechanical, structure, trade)	4-M, 2-Q
Dry Cleaning*	**
Electrolysis	M**
Electronics Technology	1-M
Facial and Make up	2-M
Fashion Trade	
Fashion Design	2-M
Patternmaking	3-M
Tailoring/dressmaking	2-M
Floor Covering	1-M**
Food Services/Management	1-M
Candy and Cake Decorating	1-M
Furniture Design*	
Industrial Electricity*	
Interior Decorating	1-M
Locksmith*	**
Machinist	1-M

APPENDIX TABLE XII (cont'd)

Course Title	Schools Where Offered By Borough
Marine Navigation	1-M
Maritime Training	1-M
Motion Pictures*	
Photography	1-M
Plumbing	1-K
Power Mechanics	
Auto Body and Fender	3-M
Automotive Mechanics	2-M, 1-K
Auto Transmission Mechanics	1-M
Diesel Engine Mechanics	2-M
Printing	2-M, 1-Q
Radio Announcing	1-M
Radio and T.V. Service	2-M
Surveying*	
Traffic and Transportation Management*	
Upholstery	2-M
Watchmaking	1-Q
Welding	3-M, 1-K
Miscellaneous	
Drama	1-M
English as a Second Language	1-M
Fire Science	1-M
High School Equivalency Preparation	2-M, 1-X
Modeling*	**
Law Enforcement	1-M
Polygraph*	**
Security Officer*	

APPENDIX G - POST-SECONDARY CAREER PROPOSALS

DESCRIPTION OF SPECIFIC PROJECTS

SUBMITTED BY PARTICIPATING INSTITUTIONS

APPENDIX G - POST-SECONDARY CAREER PROPOSALS

Career Cluster: Business and Commerce Technologies

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Bor. of Manhattan Community College C1	1. New options in business management: general business management, retailing, credit and collection sales. 2. Add specialized accounting courses: non-for-profit, state and local business taxes.	1. Language skills in English and Spanish for bilingual secretarial courses. 2. Drop advertising.	1. Language skills in English and Spanish for bilingual secretarial studies.	1. Cooperative education component		1. Select a course and begin discussion	
Bronx Community College C2	1. Business curriculum for Civil Service. 2. Courses for secretarial program.			1. Expand career horizons of secretarial student			
Hostos Community College C3	1. Business administration with special options, e.g. business finance. 2. Secretarial/medical career areas: word processing, medical assistant. 3. In-service and continuing education in secretarial program.	1. All first year business and accounting courses in Spanish and English.					
Kingsborough Community College C4	1. Retail business management concentration in supermarket management. 2. Court/hearings stenography concentration.		1. Course material in conversational Spanish.			1. Select an appropriate area and begin program	

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Business and Commerce Technologies (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
LaGuardia Community College C5	1. Hotel/Motel management option.						
New York City Community College C6			1. Maintain an open laboratory "learning center" for individualized and group tutoring and other services.				
Queensborough Community College C7	1. "Small Business" management option. 2. Management option to data processing curriculum. 3. Certificate program in data processing. 4. Certificate program in office and secretarial skills.	1. Bilingual component for secretarial science.	1. Learning science center for secretarial science.	1. Co-op education component for all business disciplines.			Homebound-handicapped program for secretarial, accounting, data processing.
Staten Island Community College C8		1. Additional mini-versity programs in business and secretarial.					Programs in various career areas.

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Business and Commerce Technologies (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Medgar Evers Community College C9	1. Medical Secretary program.			1. Co-op education component for all programs.			
Fashion Institut	1. Five bachelor degree programs. 2. Three AAS programs. 3. Certificate programs.		1. Reading, writing and math for educational disadvantaged.	1. High rate of job placement.			
College of Optometry S2	NOT APPLICABLE - - -	- - - - - -	- - - - -	- - - - - -	- - -	- - -	- - -
Academy of Aeronautics P1	NOT APPLICABLE - - -	- - - - - -	- - - - -	- - - - - -	- - - -	- - -	- - -
Collegiate Institute P2	1. Seminars for special interest groups.	1. Automated typing lab. 2. Increase electives. 3. Faculty/student seminars. 4. Expand facilities.	1. Math, communication skills, ESL. 2. Provide more financial aid.	1. Counseling services using alumni. 2. Establish Community Advisory Group.			
Interboro Institute P3							

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Business and Commerce Technologies (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Lab Institute of Merchandising P4		1. Update and expand programs as necessary.	1. Provide more financial aid.	1. Maintain 80-90% job placement record. 2. Increase student body.			
Technology Careers Institute P5	NOT APPLICABLE - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Wood School P6		1. Outside experts into the classroom.	1. Necessary skills for changes in business world.	1. Expand co-op education program. 2. Expand recruitment of academic high school students. 3. Widen job horizons of students.		1. Better transfer and articulation with post-secondary institutions.	

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Commercial Arts Technology

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Bor. of Manhattan Community College C1	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
Bronx Community College C2	No new activities listed -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
Hostos Community College C3	None - - - - - -	- - - - - -	- - - - -	- - - -	- - - -	- - - -	- - - -
Kingsborough Community College C4	1. Commercial art and design. 2. Stagecraft mechanics and technology. 3. Radio broadcasting.						
LaGuardia Community College C5	None - - - - - -	- - - - - -	- - - -	- - - -	- - -	- - - -	- - -
New York City Community College C6	No new activities listed.						
Queensborough Community College C7	1. Photographers assistant certificate program. 2. Business ceramics certificate program.						

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Commercial Arts Technology (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Staten Island Community College C8	No new activity listed - -	- - - - - -	- - - - -	- - - - -	- - - -	- - -	- - - -
Fashion Institute of Technology S1	None - - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - -	- - - -
College of Optometry S2	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Academy of Aeronautics P1	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Collegiate Institute P2	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Interboro Institute P3	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Lab Institute of Merchandising P4	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Technology Careers Institute P5	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -
Wood School P6	None - - - - - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Health Services and Para-Medical

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Bor. of Manhattan Community College C1		1. Interrupt medical emergency technology. 2. Expand respiratory therapy technology.	1. Audio visual lab for mental health technology. 2. Hospital - simulated lab for medical records technician. 3. Electronic student-response learning system.				
Bronx Community College C2	1. Medical laboratory technology program as an alternate to nursing. 2. Satellite allied health program at Bronx Veterans Administration hospital.	1. Half year continuing education courses for registered and practical nurses. 2. Refresher nursing courses for reentry.					
Hostos Community College C3	1. AAS program for licensed radiologic technicians.	1. Integrate social science considerations into nursing program. 2. Refresher nursing courses for licensure examinations. 3. Dental hygiene program in conformance with licensing bodies.					

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Health Services and Para-Medical (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Kingsborough Community College C4	1. Feasibility study of new health related programs with job potential. 2. Environmental technology.	1. Improve clinical experience for nursing.	1. Speech improvement laboratory.				
LaGuardia Community College C5	1. Mortuary science program. 2. Dietetics technician program.						
New York City Community College C6		1. Modify clinical electives in medical laboratory technicians program. 2. Better clinical opportunities in dental hygiene, dental technicians, and chemistry.	1. Develop learning aids for medical laboratory technicians.	1. Better student job advisement for radiologic technicians.			
Queensboro Community College C7		1. Short term courses in gerontology. 2. Better labs and field experience for environmental health. 3. New courses and better lab experience for medical technicians	1. Tutoring and audio-visual materials, especially for clinical skills.				

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Health Services and Para-Medical (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Staten Island Community College C8		1. Broaden cytotechnology, blood bank technician, and environmental technology.		1. Assist in job placement.			
Medgar Evers Community College C9		1. Improve nursing according to job requirements.		1. Develop a co-op education component.			
Fashion Institute of Technology S1	NOT APPLICABLE - - -	- - - - -	- - - -	- - - - -	- - - -	- - -	- - -
College of Optometry S2		1. Keep in tune with improved technology. 2. Continuing education program throughout New York State.		1. Acquaint high school students with potential. 2. Expand placement opportunities for graduates.			
P1, P2, P4, P5, P6	NOT APPLICABLE - - -	- - - - -	- - - -	- - - - -	- - - -	- - -	- - -
Interboro Institute P3							

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Mechanical and Engineering Technologies

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Bor. of Manhattan Community College C1	NOT APPLICABLE- - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
Bronx Community College C2	1. Civil-construction-serveying option in mechanical technology.	1. Electro-mechanical technology transfer to City College of New York program. 2. Align plastics technology with job market.		1. Expand co-op education program in chemical technology.			
Hostos Community College C3	NOT APPLICABLE- - -	- - - - - -	- - - - -	- - - - -	- - - -	- - -	- - -
Kingsborough Community College C4	NOT APPLICABLE- - -	- - - - - -	- - - - -	- - - - -	- - - -	- - -	- - -
Laguardia Community College C5	NOT APPLICABLE- - -	- - - - - -	- - - - -	- - - - -	- - -	- - -	- - -
New York City Community College C6	1. Bio-medical equipment technicians.	1. Expand number of Alternate Format Curricula for adult continued education.				1. Extend articulation to a large number of programs.	

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Mechanical and Engineering Technologies (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Queensborough Community College C7		1. Core curriculum with series of options in electrical technology. 2. Improve laboratory experience for electrical technology. 3. Industrial arts concentration in mechanical technology. 4. Upgrade "welding" option.	1. Audiovisual and computer techniques for electrical technician.				
Staten Island Community College C8	NONE						
Medgar Evers Community College C9	NOT APPLICABLE- - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
S1, S2	NOT APPLICABLE- - -	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
Academy of Aeronautics P1	1. Graduated ladder of technology, training in conformance with industry and FAA requirements.	1. Laboratory experience in line with industry and licensing demands.	1. Remedial math, English, ESL. 2. Rigid student evaluation.	1. Continual counseling. 2. Seek out new jo markets.	1. Keep in tune with industry requirements.	1. Articulation w/4 year program.	

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Mechanical and Engineering Technologies (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Academic of Aeronautics P1 (Continued)				3. Fulltime placement personnel.			
P2, 3, 4, 6	NOT APPLICABLE- - -	- - - - - -	- - - - - -	- - - - -	- - - -	- - - -	- - - -
Technology Career Institution P5							

APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Public and Community Related Technology

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Bor. of Manhattan Community College C1	APPLICABLE IN AA PROGRAMS-	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
Bronx Community College C2	APPLICABLE IN AA PROGRAMS-	- - - - - - - -	- - - - - -	- - - - -	- - - -	- - - -	- - -
Hostos Community College C3		1. Bilingual module in early childhood program					
Kingsborough Community College C4	1. Certificate programs for civil service employees.		1. Instructional material workshop for child care program.	1. Short-term counseling for adults in mid-career.			
Laguardia Community College C5	APPLICABLE IN AA PROGRAMS-	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - -
New York City Community College C6	NONE						
Queensborough Community College C7	NONE						
Staten Island Community College C8	NONE						

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APPENDIX G: POST-SECONDARY CAREER PROPOSALS

Career Cluster: Public and Community Related Technology (Continued)

College	New Programs	Update/Revise Programs	Basic Skills Supportive Services	Counseling Job Placement	Faculty-Staff Development	Articulation w/Secondary Schools	Handicapped
Medgar Evers Community College C9	1. Program in public administration.			1. Co-op education program component.			
SI, 2	NOT APPLICABLE- - -	- - - - - -	- - - -	- - - -	- - -	- - - -	- - -
PI, 2, 3, 4, 5, 6	NOT APPLICABLE- - -	- - - - - -	- - - -	- - - -	- - -	- - - -	- - -

APPENDIX H

CERTIFICATE PROGRAMS OF CUNY COLLEGES

APPENDIX H

Certificate Programs Offered by the Community Colleges of the City University of New York

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Source: New York State Education Department Inventory of Registered Programs 12/23/74.

A. Borough of Manhattan Community College

1. Bookkeeping
2. Typewriting
3. Stenography
4. Business Machines
5. IBM Keypunch
6. TV and Radio Repair
7. Building Maintenance
8. Business Education

B. Hostos Community College

1. Inhalation Therapy

C. Kingsborough Community College

1. Food Marketing, Management Trainee

D. New York City Community College

1. Offset Duplicating
2. Office Business Trainee Program
3. Lithographic Press
4. Lithographic Platemaking and Special Processes
5. Lithographic Camera
6. Lithographic Management
7. Lithographic Stripping
8. Printing Ink Technology
9. Lithographic Offset Technology, Also AAS
10. Data Processing and Console Operation
11. Numerical Control
12. Keypunch Operation
13. Hearing Aid Dispensing
14. Ophthalmic Dispensing, Also AAS
15. Nursing Home Administration
16. Hospital Management
17. Mechanical Drafting
18. Machine Tools Technology, Also AAS
19. Architectural Drafting
20. Automotive Air Conditioning
21. Automotive Technology, Also AAS
22. Diesel Engines & Diesel Labs.
23. Welding
24. Electronics Technology, Also AAS
25. Electronics
26. Fuel Systems and Labs
27. Apparel Processing
28. Environmental Science Technology, Also AAS
29. Heating, Air Conditioning & Refrigeration

APPENDIX H

D. New York City Community College (Continued)

30. Hospital Food Services Supervision
31. Sanitation Management
32. Pest Control Operations
33. Building Inspection Service
34. Driving Instructors Education
35. Audio-Visual Aid Technology
36. Block Worker
37. Civil Service Preparation
38. University of Massachusetts Career Opportunity Program
39. Developing College Skills Program

E. Staten Island Community College

1. Industrial Management
2. Dental Assisting
3. Medical Assistance
4. Medical Transcriber
5. Manufacturing Technology

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Borough of Manhattan Community College CI

GOALS	OBJECTIVES	ACTIVITIES
1. **Business and Commerce Technologies:** To offer a variety of curricula to meet needs of business-oriented students.	1. a. To revise and update programs to keep in tune with job market realities.	1. a.1 To offer new options in business management: general business management; retailing; credit and collection; sales.
		2. To drop advertising.
		3. To add new courses in accounting: non-for-profit accounting; state and local business taxes; data processing required.
		4. To continue bi-lingual secretarial science course, teaching language skills in both Spanish and English.
		5. To update data processing program to reflect rapidly changing technology.
	b. To articulate one program in the business area with a comparable high school program.	b.1. To develop an appropriate course of study.
		2. To conduct discussions with BHE and BE to formalize program.
2. **Health Services and Para-Medical Technologies:** To prepare students for careers in hospitals and clinics, mental health centers and other allied health service agencies.	2. a. To review programs in terms of market research.	2. a.1 To interrupt temporarily offering medical emergency technology; to expand respiratory therapy technology.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Borough of Manhattan Community College (continued) C1

GOALS	OBJECTIVES	ACTIVITIES
	2.b. To implement and integrate technical and theoretical learning in medical records and mental health technology programs.	b.1. To convert MR classroom into hospital-simulated MR laboratory 2. To establish audio-visual laboratory for MHT program. 3. To train MR students for increasing hospital responsibilities.
	c. To increase effectiveness of techniques for student learning and acquisition of skills.	c. To install electronic student-Response Learning System.
3. Cooperative Education Program; to assist students, largely disadvantaged, in successful transition from college entrance to job entry.	3. To expand and improve: (a) job placement; (b) occupational guidance and career counselling.	3.a. To expand Employers Data Bank, initiate workshops with labor and industry representatives. b. To investigate and evaluate computerized occupational information banks; administer decision-making text to all incoming freshmen.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY Bronx Community College C2

GOALS	OBJECTIVES	ACTIVITIES
1. Business & Commerce Technology: To expand business curricula to respond to changing business world and to provide secretarial graduates with skills for upward mobility.	I.a. To develop general business curriculum that will enable students to meet requirements of Civil Service.	I.a. To develop detailed course outlines for each of the approved courses.
	b. To inaugurate courses in word processing administration, word processing simulation and magnetic keyboarding.	b.I. To develop syllabi and course outlines for the three programs
	c. To expand the career horizons of secretarial students.	c.1. To involve students more extensively with the fields they plan to enter, i.e., law, medicine, transportation and communications. 2. To counsel them regarding more responsible job opportunities.
2. Health Services and Para-Medical Technologies: To provide students with allied health programs as an alternative to nursing, and to provide those currently working in nursing with continuing education.	2.a. To phase in new medical laboratory technology program with a clinical component.	2.a.I. To complete course modules for classroom and laboratory. .2. To provide core courses necessary for upward mobility in a 4 year B.S. program. 3. To counsel and place students into this area.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY Bronx Community College (Continued) C2

GOALS	OBJECTIVES	ACTIVITIES
	2.b. To establish a satellite allied health program at the Bronx V.A. hospital in cooperation with the Veterans Administration	2.b.1. To undertake all the necessary activities: identify manpower needs, establish appropriate curricula, provide student support services, provide for appropriate campus and advisory supervision, administer V.A. money through Research Foundation.
	c. To complete a pilot plan for continuing education for registered and practical nurses.	c. To develop ½ year courses in such areas as:pharmacology and new drug therapy,principles of unit management, understanding psycho-social behavior and nursing responses, cardio-pulmonary resuscitation, etc.
	d. To complete a plan of refresher courses for those who have been away from nursing for sometime.	.d. To develop short term curricula such as: new methods and technology in basic nursing skills; and specialized nursing of acutely ill patients; chronically ill patients, nursing care of mentally ill, the aged; etc.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Bronx Community College (Continued) C2

GOALS	OBJECTIVES	ACTIVITIES
3. Mechanical and Engineering Technologies: To develop programs with highest employment and transferability potential.	3.a. To complete a curriculum in electro-mechanical technology designed to enable graduates to transfer to the CCNY bachelor of technology degree in the same field.	3.a. To present existing courses in the proposed sequence and publicize availability of curriculum.
	b. To complete a curriculum in civil-construction-surveying technology as part of mechanical technology.	b. To develop course outlines for first year courses and phase in existing courses.
	c. To complete cost lowering activities of the programs in chemical technology.	c.1. To expand cooperative work experience program through search of industrial concerns for positions. 2. To realign offerings with MLT
	d. To increase utilization of plastics equipment in plastics technology offering courses directed at the job market.	3.d. To complete consolidation of use with City College.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Hostos Community College C3

GOALS	OBJECTIVES	ACTIVITIES
1. Business and Commerce Technology: To expand business administration programs and to strengthen the medical secretarial program so graduates can enter the job market.	1.a. To develop a program in business administration with special options related to the availability of jobs.	1.a. To develop an introductory course in business finance for AAS program in accounting.
	b. To offer all first year courses in business and accounting in Spanish.	b. To develop appropriate syllabi in Spanish.
	c. To develop programs in secretarial-medical career areas in: word processing, medical assistance, bilingual.	c.1. To identify components of these curricula and write performance objectives for specific courses. 2. To secure grants to purchase necessary equipment and to recruit personnel.
	d. To offer special in-service and continuing education courses in secretarial program.	d. To identify specific areas and skills needing upgrading to write performance objectives for new courses.
2. Health Services and Para-Medical: To provide an educational program so that licensed nursing and other health technicians will function as professionals in a health team.	2.a. To prepare registered professional nurses to serve the varied ethnic and cultural communities.	2.a. To integrate behavior and social science courses into nursing curricula.
	b. To enable nursing students to pass licensure examinations.	b. To continue advanced nursing education including modules in clinical practice.
3. Public and Community Related Technologies: To design program in early childhood education so that Spanish speaking graduates can take advantage of limited employment opportunities.	3. To include a bilingual module in early childhood program.	3. To design and offer new bilingual module.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Kingsborough Community College C4

GOALS	OBJECTIVES	ACTIVITIES
1. **Business and Commerce Technologies:** To add new programs and expand existing services to improve employability of graduates.	1. a. To develop and expand retail business management concentration in supermarket management and food marketing.	1. a.1. To introduce improved and/or new courses.
		2. To concentrate on high school articulation and industry contacts.
		3. To upgrade skills of current employees.
	b. To offer a concentration in court/hearings stenography in secretarial science program.	b. To develop appropriate curriculum.
	c. To develop course materials in conversational Spanish for career students.	c.1. To select appropriate career areas for Spanish courses.
		2. To prepare course materials and workbooks.
	d. To establish secondary post-secondary articulation in appropriate areas.	d.1. To identify specific problem areas.
		2. To implement appropriate curriculum modifications.
2. **Creative Art Technologies:** To add new degree programs to prepare students for job entry in the area of creative arts.	2. a. To implement an A.A.S. degree in commercial art and design.	2. a. To develop and refine course of study.
	b. To plan pilot courses in stagecraft mechanics and technology.	b.1. To develop introductory courses.
		2. To establish close liaison with industry.
	c. To introduce course offerings in radio broadcasting which will serve the industry and F.C.C. requirements.	c.1. To add staff.
		2. To purchase necessary equipment.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Kingsborough Community College (Continued) C4

GOALS	OBJECTIVES	ACTIVITIES
3. Health Services and Para-Medical Programs: To improve support services for students and expand curricula.	3. a. To improve clinical experience for nursing students.	3. a. To develop a better articulation between college classroom instruction and participating hospital field work experiences.
	b. To introduce a speech improvement laboratory for occupational students.	b. To develop new methodologies in speech improvement with emphasis for ghetto students.
	c. To identify and implement new health and health-related occupational programs to increase employment opportunities.	c. To conduct feasibility studies.
	d. To introduce a comprehensive two-year curriculum in Environmental Technology.	d. To implement first year courses and establish industry liaison.
4. Public and Community Related Technologies: To enhance the child care program.	4. To create instructional materials workshop containing a full sampling of field-work materials.	4. To design, construct and purchase workshop materials.
5. Guidance and Counseling: To devise a variety of programs to meet needs of different populations.	5. a. To provide short-term counseling and individualized information and instructional materials to adults in career transition, i.e., women re-entering work world, veterans, employed persons seeking skills upgrading, early retirees seeking a second career.	5. a.1 To develop a series of portable counseling modules to take to community-based groups. a.2 To prepare career counseling workbook to supplement weekly group process. a.3 To prepare audio visual materials relating to mature adults.
	b. To develop a program to award credit for life experiences for mature students in occupational programs.	b. To explore, implement and evaluate mechanisms and procedures necessary.

LEVEL: POST-SECONDARY

Kingsborough Community College (Continued) C4

GOALS	OBJECTIVES	ACTIVITIES
	c. To expand tutorial services to upgrade academic skills of occupational students.	c. To employ and train tutors.
	d. To introduce Learning Opportunities Center to meet specialized occupational needs of learning disabled students.	d. To assess specific learning disability and develop individualized program.
6. Certificate Programs: To develop less-than-degree programs which effectively meet occupational needs.	6. To introduce certificate or less-than-degree programs for various occupation groups, i.e., language programs for civil service employees; refresher programs for persons with significant career interruption.	6.a. To survey job market to identify needs. b. To develop appropriate entry-level positions. c. To design program learning material.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

La Guardia Community College C5

GOALS	OBJECTIVES	ACTIVITIES
1. Business and Commerce Technologies: To offer a new program that has available jobs.	1. To secure approval to offer a program option in hotel-motel management.	1. a. To secure approval from B.H.E. and State Department of Education for the program. b. To arrange articulation with Sullivan County Community College which will offer part of program and arrange internship and housing.
2. Health Services and Para-Medical: To provide quality career programs for students who plan to enter labor market with a para-professional degree.	2. a. To secure program approval to offer a program in Mortuary Science.	2. a.1. To reinvestigate labor market and student demand for program. 2. To identify and confirm availability of funding. 3. To obtain N.Y. State Department of Health support.
	b. To secure funds to develop dietetics technician program.	b.1. To draft proposal demonstrating demand for such graduates. 2. To obtain college-wide approval for proposal. 3. To submit proposal to potential funding agencies.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY New York City Community College C6

GOALS	OBJECTIVES	ACTIVITIES
1. Business and Commerce Technology: To provide students with a range of academic supportive services.	1. To maintain an open laboratory "learning center" providing: individual or group tutorial services; AV and other materials for individualized learning; aid in study skills; counseling for job placement; support to faculty preparing learning materials.	1.a. To develop tutorial, class review modules and other learning materials. b. To provide necessary make-up services. c. To offer individual and group study sessions. d. To provide facilities and equipment for self study.
2. Health Services and Para-Medical: To expand and modify the curricula and to provide supportive services to increase employment potential of students.	2.a. To modify the medical laboratory technician curriculum to expand range of student's knowledge and to increase number of students who pass ASCP/MLT examination.	2.a.1. To modify electives in clinical areas and develop appropriate course outlines. 2. To develop single concept learning modules for sub-topics of ASCP/MLT exam. 3. To replace deteriorated equipment.
	2.b. To provide better student advisement for radiologic technology.	2.b.1. To investigate related career areas in industry and suggest continuing education courses. 2. To assist students who want to relocate. 3. To correspond with manufacturers and buyers of X-ray equipment for employment requirements and distribute information to faculty and students.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

New York City Community College (Continued) C6

GOALS	OBJECTIVES	ACTIVITIES
	2.c. To provide students in dental hygiene, dental technology, and chemistry, with skills in the use of the latest modern equipment.	2.c. To secure funds to replace and upgrade worn out old equipment.
3. Mechanical and Engineering Technologies: To develop programs in fields where supply of trained technicians is inadequate.	3.a. To plan a program to prepare bio-medical equipment technicians.	3.a.1. To initiate a bio-medical option to the electro-mechanical technology curriculum. 2. To assemble necessary laboratory equipment and develop new lab experiments.
	b. To increase educational opportunities for adults in engineering technology areas.	b. To extend number of Alternate Format Curricula for adults to 3 additional curricula areas.
	c. To improve high school to college articulation between certain courses of study in vocational and technical high schools and several of the technology programs at the College.	c.1. Implement advanced standing admission of Technical Electronics graduates from 2 high schools into the Electrical Technology curriculum at the College.

LEVEL: POST-SECONDARY New York City Community College (Continued) C6

GOALS	OBJECTIVES	ACTIVITIES
		c.2. To develop and implement continuum curricula in the following areas: from Electrical Installation and Practice to Electrical Technology & Electromechanical Technology; from Office Machine Technology to Electromechanical Technology; from Electromechanical Drafting to Design Drafting Technology; from Automotive Mechanics to Automotive Technology; from Environmental Climate Control to Environmental Control Technology; from Machine Shop Practice to Machine Tool Technology. c.3. To develop and implement strategies to identify and remove academic deficiencies of students in the above programs prior to College admission.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Queensborough Community College C7

GOALS	OBJECTIVES	ACTIVITIES
1. Business and Commerce Technology: To institute and expand a variety of programs in the business and secretarial area to improve student job potential.	1. a. To develop a one-year certificate program in office skills for entry-level and intermediate clerical and secretarial programs and also serve to upgrade skills for reentry.	1. a. To plan course of study with and without shorthand and/or word processing to enable students to achieve necessary level of job competence.
	b. To establish Learning Resource Center for secretarial science students to meet the diverse learning needs of students.	b. To research, set up, and staff special room with remedial and diagnostic equipment.
	c. To develop a secretarial science program for the bilingual secretary (Spanish).	c. To develop a plan of study which includes courses in: secretarial skills, Spanish, broad business background, and liberal arts.
	d. To develop a certificate program in data processing.	d. To develop a curriculum for one-year day or two-year evening program.
	e. To develop a management option to the data processing curriculum which will enable graduates to qualify for data processing management trainee positions.	e. To Research requirements for such a position and develop appropriate courses.
	f. To offer a "small business" management option in the management program.	f. To offer specialized courses in small business management including field experience in addition to the existing business courses.
	g. To expand cooperative education program to include all business disciplines which will include more comprehensive on-campus activities to bridge gap between classroom and job.	g. To increase activities of coordinator to secure new job placements, to confer with supervisors and students, to conduct seminars and to articulate with other institutions with similiar programs.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Queensborough Community College (Continued)

GOALS	OBJECTIVES	ACTIVITIES
2. **Commercial Arts Technologies:** To combine creative art skills and business background to enhance learning potential of students.	2. a. To develop a photography certificate program to upgrade present employees and new entrants into the field to work in photography studios, etc.	2. a. To develop a course of study which includes art history, photography, and studio experience using a variety of equipment.
	b. To develop a ceramics certificate program combining arts and business management courses so potters can become independent business men.	b. To develop a course of study which includes ceramics studio, art history, and business courses.
3. **Health Services and Para-Medical Technologies:** To upgrade and improve preparation in this area for job mobility and upgrading.	3. a. To provide registered professional nurses with short-term training in gerontology.	3. a. To complete a series of courses including seminars, lectures and discussions which include most up-to-date information.
	b. To improve support services for nursing students.	b.1 To provide students with tutoring services and selected audio visual material. b.2 To improve clinical skills of students by use of audio visual demonstration and evaluation.
	c. To develop the environmental health program as a "pilot plant" experience.	c.1 To introduce modern, analytical instrumentation. c.2 To improve lab courses. c.3 To enlarge opportunties for field experience.
	d. To upgrade and develop new courses for medical technology program.	d.1 To revise laboratory and course outlines to to include newer techniques and instrumentation. d.2 To propose and then develop new courses in: blood banking, electron microscopy, cytotechnology, special chemistry, hemostasis, special hematology.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Queensborough Community College (Continued) C7

GOALS	OBJECTIVES	ACTIVITIES
4. Mechanical and Engineering Technologies: To offer programs so that students have best preparation to secure job upon graduation.	4. a. To continue development of a core curriculum in electrical technology with a series of specialty areas.	4. a.1 To revamp course requirements to include job-oriented material in greater depth. 2. To encourage older technicians to keep current and interact with the younger students.
	b. To increase student comprehension and retention of course material in Electronics Technology programs.	b. To introduce more AV and computer techniques in E.T.
	c. To improve effectiveness of student laboratories.	c. To relieve the overcrowding by rearranging and expanding existing facilities.
	d. To reflect the latest state-of the-art in industrial practice in Electronics Technology.	d. To acquire new and additional equipment.
	e. To institute an industrial arts concentration within the mechanical technology curriculum which would serve three areas: industrial arts, architecture and the construction industry.	e. To develop a "woodworking technology" course: modify existing course in "thermodynamics" to include "heat power technology".
	f. To upgrade instruction of "welding" in mechanical and design drafting technologies.	f. To incorporate use of modern equipment.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Queensborough Community College (Continued) C7

GOALS	OBJECTIVES	ACTIVITIES
5. Homebound Handicapped: To continue and expand programs preparing students for careers that will enable them to become self-sufficient.	5. a. To improve career programs in accounting, data processing, and secretarial.	5. a.1. To secure equipment to place in students home for duration of course. 2. To offer advanced level courses.
	b. To study career opportunities for job placement.	b.1. To contact appropriate businesses to hire graduates. 2. To offer job counseling to students.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY

Staten island Community College CB

GOALS	OBJECTIVES	ACTIVITIES
1. Health Programs: To improve and expand career programs in this area.	1. a. To develop several new programs.	1. To broaden programs in cytotechnology, blood bank technology, and environmental technology.
	b. To accept more students and assist in job placement.	
2. To develop programs for the handicapped in the career areas.	2. To utilize community resources and outreach programs.	2. a. To use campus center for handicapped.
		b. To plan a homebound program.
3. To respond to the diverse career needs of the adult population.	3. a. To expand use of media instruction, i.e., TV and Staten Island newspapers.	3. a. To plan career oriented courses for media.
	b. To expand off-campuses instruction at sites throughout Staten Island and New York City.	b. To increase number of courses offered in secretarial and business programs using the mini-versity model for additional corporations and community groups.
	c. To expand continuing education program for persons who want a specific skill or to increase their knowledge.	c. To offer additional career and general courses not necessarily leading to a degree.

APPENDIX I: POST-SECONDARY PLANS, CUNY

LEVEL: POST-SECONDARY Medgar Evers Community College C9

GOALS	OBJECTIVES	ACTIVITIES
1. To establish two year career programs in areas which have a high employment potential.	1. To develop a plan for programs in:	1.a. To expand course outlines.
	a. Medical secretary	b. To consult with the business and professional community about job requirements.
	b. Communications	
	c. Public administration	c. To develop a cooperative education component for all disciplines.
	d. Nursing	

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

Fashion Institute of Technology SI

LEVEL: POST-SECONDARY

GOALS	OBJECTIVES	ACTIVITIES
1. To prepare men and women for professional careers in the fashion and related industries.	1. To reflect the rapid changes in these industries with new and revised curricula.	1. a. To introduce bachelor degree programs which build on existing A.A.S. degree programs: - B.S. in Textile and Apparel Marketing. - B.S. in Textile and Apparel Production Management. - B.F.A. in Interior Design. - B.F.A. in Product Design. - B.F.A. in Fashion Advertising Design. b. To introduce new A.A.S. programs in: - Menswear Design and Marketing. - Cosmetics Merchandising. - Textile Products Care Technology and Management. c. To evaluate one semester and one year programs to meet specialized skill training requirements and to serve as the start of a career ladder.

LEVEL: POST-SECONDARY

Fashion Institute of Technology (Continued) 51

GOALS	OBJECTIVES	ACTIVITIES
	2. To maintain a high rate of job placement.	2. a. To continually assess at first hand the fashion industry's job requirements. b. To stimulate students to think creatively and help them develop their sense of uniqueness.
	3. To continue educational skills courses for educationally disadvantaged students.	3. a. To experiment with skills courses in reading, writing and mathematics. b. To relate basic skills and liberal arts programs to the technical courses.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

SUNY: State College of Optometry 52

GOALS	OBJECTIVES	ACTIVITIES
1. To train ancillary personnel for optometric offices who will function as a "second set of hands" for the practitioner.	1. To meet the increased demand for optometric technicians and assistants which is due to improved technology and the demand for more efficient care.	1. a. To cooperate with Westchester Community College which furnishes the 30 liberal arts credits to match 30 technical credits. b. To offer program to new high school graduates and to those enrolled in post-secondary institutions looking for career opportunities. c. To continue the program of continuing education offered throughout New York State. d. To identify more job placement opportunities for graduates.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

Academy of Aeronautics P1

GOALS	OBJECTIVES	ACTIVITIES
1. To provide career education programs in the technical areas of the aviation, electronics and allied industries compatible with FAA certification requirements and job market specifications.	1. To provide a graduate ladder of technological training and support services to meet student capabilities and aspirations.	1. a. To offer the following curricula: - Associate in Applied Science provides for transfer to Bachelor's degree program as well as immediate entry into industry. - Associate in Occupational Studies leads directly to employment. - Consortium with New York Institute of Technology offers B.S. program for A.A.S. graduates. b. To start specialized technology programs for persons now employed. c. To offer remedial programs in Math, English as a second language. d. To provide personal counseling and career advisement on a continuing basis. e. To develop adequate financial assistance for qualified students.
	2. To provide extensive hands-on laboratory experiences related to the demands of industry and the requirements of the regulatory bodies.	2. a. To submit grant proposals for funds to buy new equipment. b. To review government surplus equipment for needed itmes. c. To secure donations from aviation industry of most up-to-date equipment.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

Academy of Aeronautics (Continued) P1

GOALS	OBJECTIVES	ACTIVITIES
	3. To maintain high standards of excellence in curricula, faculty, and student competence due to the unique nature of the jobs performed.	3. a. To revise curricula to conform with changes in the industry and FAA requirements.
		b. To maintain teaching as the first responsibility of the faculty at the same time making it possible for them to pursue professional activities.
		c. To retain a rigid attitude toward student evaluation and require improvement of poor performance.
	4. To assist each alumnus obtain employment relevant to his training.	4. a. To redirect placement effort from major airline and manufacturing corporations to corporate aviation.
		b. To extend placement efforts geographically and into other forms of advanced technology.
		c. To appoint a full-time placement director.
		d. To acquaint students with opportunities both within and outside New York City area.
		e. To create an industry-wide awareness of the competencies of academy.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

The Collegiate Institute P2

GOALS	OBJECTIVES	ACTIVITIES
1. To provide broad ranged business-related programs to a cross section of students with particular emphasis on disadvantaged and minority sectors.	1. To increase enrollment of educationally and economically disadvantaged students.	1. a. To seek additional funds to assist such students defray tuition and support costs. b. To continue supportive courses:basic math, communication skills, ESL. c. To seek funds to increase recruitment activities of such students.
	2. To provide quality career education programs in accounting, management, marketing, and secretarial science.	2. a. To supplement classroom instruction with an automated typing laboratory. b. To plan curriculum changes such as: increase elective offerings, faculty/student seminars. c. To expand facilities to allow for special spaces, flexibility, and new programs. d. To sponsor seminars for special interest groups in New York area.
	3. To offer students supportive services.	3. a. To expand counseling services including the use of an alumni group. b. To expand library. c. To make available an extensive program of career and personal guidance.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

The Collegiate Institute (Continued) P2

GOALS	OBJECTIVES	ACTIVITIES
	4. To respond to community needs.	4. a. To encourage alumni to provide insights into effectiveness of program. b. To establish a community advisory group which will reflect background of student body. c. To recruit veterans, and mid-career persons to upgrade skills.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

Laboratory Institute of Merchandising P4

GOALS	OBJECTIVES	ACTIVITIES
1. To train people for entry level management employment in fashion merchandising: retailing, retail management, promotion, advertising, and fashion publications.	1.a. To offer a program acceptable to the industry so that students will find jobs.	1.a.1. To add new and relevant course material.
		2. To evaluate faculty and make changes where necessary.
	b. To increase enrollment of both part-time and full-time students from 200 to 250 over a five year period.	b.1. To intensify recruiting.
		2. To expand weekend and January program.
		3. To initiate a summer session.
	c. To assist students meet the costs of the program.	c.1. To increase scholarship aid
		2. To increase reliance on grant program.
		3. To institute a monthly tuition payment plan.
	d. To maintain 80-90% record in placement of students.	d.1. To work with the industry.
		2. To expand contacts with alumni.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY

The Wood School P6

GOALS	OBJECTIVES	ACTIVITIES
1. To train students so that they will have a successful secretarial career and a sound introduction into the business world.	1.a. To help students develop skills necessary to meet the changing needs of the business world.	1.a.(1) To place greater emphasis on verbal skills. (2) To investigate new ideas presented by the business community; implement change when feasible and necessary. (3) To encourage graduates to take life-time brush-up courses in the evening program.
	b. To encourage business community involvement in training of future secretaries by expanding the cooperative education program.	b.(1) To develop new areas for placement. (2) To build rapport with established national professional organizations, e.g. AMA, AMS.
	c. To bring outside expertise into the classroom.	c. (1) To invite guest speakers for such areas as, advertising, television, etc. (2) To invite personnel directors to conduct seminars on interviewing techniques.

APPENDIX J: POST-SECONDARY PLANS, NON-CUNY

LEVEL: POST-SECONDARY The Wood School (Continued) P6

GOALS	OBJECTIVES	ACTIVITIES
	d. To expand recruitment of academically oriented high school seniors.	d. (1) To stimulate interest with accurate literature and direct student contact.
		(2) To use computer-based educational opportunity center.
	e. To develop the executive qualities necessary for women competing for top and middle management positions.	e. (1) To encourage attendance at community sponsored seminars and lectures relating to career advancement.
		(2) To enable discussion with successful career women.
	f. To develop transfer articulation programs.	f. (1) To discuss acceptance of transfer credits with post-secondary institutions.
		(2) To acquaint college counselors with the possibility of students receiving transfer credit at Wood School.

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